TECHNOLOGY DEPT.

First Copy

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

Vol. 14. No. 1826 — Entered as second class matter Aug. 27, 1925, Post Office, N. Y., N. Y. Under Act of March 3, 1879 — NEW YORK, FRIDAY, SEPTEMBER 30, 1932 — 5 Cents. $12 Per Year..

Bus Operators Refute Charges of Subsidy in 'Free' Use of Highways

High Taxes Cited by President Hill; Safety and Regulation Are Discussed at Chicago Meeting

Chicago, Ill., Sept. 29.—Refuting the charge that motor buses do not pay for the use of the highways and declaring that the orderly growth of this form of highway transportation has been hampered by the failure of Congress to enact legislation providing for regulation of interstates lines, Arthur M. Hill, president of the National Association of Motor Bus Operators, today appealed for a "fair deal" for operators and the 2,000,000,000 passengers who annually patronize buses.

Mr. Hill, whose address featured the opening session of the sixth annual convention of the bus association at the Congress Hotel here today, presented an imposing array of facts in support of the industry's plea for an opportunity to assure patrons maximum protection and service. That bus operators are preparing to continue their program of expansion and service improvement, despite retarding factors, was evidenced in the reports of national committees indicating that air-conditioned buses, improved terminals and interline facilities and greater safety is ahead for the millions who travel by bus.

From the standpoint of the industry, however, the report of S. A. Markel of Richmond, Va., chairman of the legislative committee, was the center of interest, as it anticipated important steps toward Federal regulation of interstate lines at the December session of Congress, recommended state legislation to control so-called travel bureaus engaged in soliciting rides for passengers in private automobiles, and urged all bus operators to join in a national effort to present the facts on bus transportation to the members of some forty state legislatures convening early in 1933.

Pointing out that of the 26,000,000 motor vehicles on the highways only 90,000 are buses, of which more than half are engaged in serving schools and 12,500 are operated supplemen-

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ALLIED SUPPLIERS EXPECT AUTOMOTIVE BUYING UPTURN SOON

Detroit, Sept. 29.—Reports received here indicate that the steel industry is looking forward hopefully to automotive purchases when work gets under way on the 1933 lines. While the automobile plants will probably not buy as heavily as they sometimes have, most of them being determined to keep production closely geared to demand and to needs, such as sampling dealers with new models, there will be a revival of steel buying here within a few weeks.

There will be some steel buying during the first part of October to take care of the final quarter's production, but this will be modest in volume. It has been reported that the Chrysler Corporation will release some steel orders for various divisions during the first week in October.

The Dodge division of Chrysler

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MIDWEST'S AUGUST CAR SALES INCREASE IN DOLLAR VOLUME

Chicago, Sept. 29.—New automobiles sold at retail in the Middle West during August were 5.2 per cent. greater in dollar value than in July. The total number sold was 1½ per cent. smaller than in the preceding month, according to the business review of the Federal Reserve Bank of Chicago.

Although slightly under the July number sold, used car sales were only 7.1 per cent. below the 1931 volume. In addition, there were further reductions in the number of used cars on hand for sale.

There was an increase of 10 per cent. over July and 5 per cent. in value in the sale of cars at wholesale in the Middle West, the report states.

Following is a tabulation of distribution of automobiles in the Middle West:

New cars Whole sale—	Per cent. change from July, '32	Aug., '31	Co's. Included
No. sold	+10.4	—53.2	15
Value	+ 5.3	—60.8	15
Retail—			
No. sold	— 1.5	—38.6	40
Value	+ 5.1	—34.7	40
On hand Aug. 31—			
No. sold	—10.8	—50.7	40
Value	—14.2	—58.5	40
Used car—			
No. sold	— 1.9	— 7.1	40
Salable on hand—			
Number	—13.5	—26.4	40
Value	—21.1	—37.3	40

STEEL ACTIVITY RISING AS CAR PLANTS SPEED NEW MODEL OUTPUT

Youngstown, Sept. 29.—Expectations that October will see a fairly substantial improvement in northeastern Ohio steel plant operations have been strongly bolstered this week by reports that automobile plants are speeding up production of new models.

Encouraged by a doubling of steel ingot production during September, district manufacturers are clinging to hopes that October will see a similar advance, which would bring district mill operations to near a third of capacity.

The chief gains in the district have been in plants of small fabricators and in factories not allied to the steel industry, but two large independents raised their open-hearth steel output this week, and further gains are in prospect. A district steel plant catering to the automobile industry has already lifted production to a 50 per cent. basis. A sheet plant at Niles, O., will resume production on September 28 and a Warren sheet plant will operate before the end of the week.

September Production Estimated At Approximately 68,000 Units

Showing Considered Good in View of Number of Plants Closed for Inventory and New Model Development

Detroit, Sept. 29. — Motor vehicle production in September, 1932, with one day to go, appears to have totaled about 68,000 units, passenger cars, trucks, buses, taxicabs and what have you. This is the smallest monthly total that has been registered in the modern history of the automobile industry, but on a comparative basis the showing is by no means bad. It compares with the revised August total of 94,391 units, just released by the Department of Commerce. In September, 1931, the total production was 143,212.

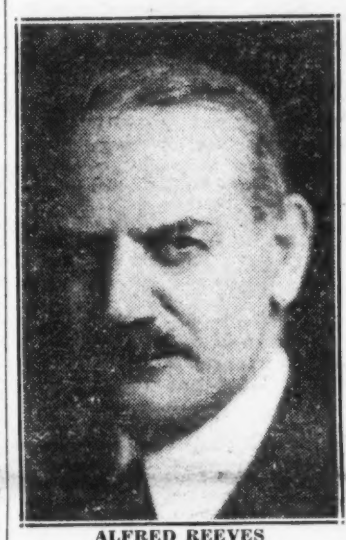
In August the industry did a little better in a production way than we had expected, the Ford assembly plants accounting for a greater output than we had looked for with the home plant idle three quarters of the time. The River Rouge plant got into production again on September 7 and has been running on a four-day week since. The Ford company during the month has probably put in about sixteen full days, averaging somewhere between 1,500 and 2,000 vehicles a day.

The Chevrolet organization had expected to begin active preparations for its new lines but unexpected orders kept the plants busy turning out the present models.

During September a number of plants in the Detroit district shut down tight as far as current production goes. In other factories actual production dropped to a very low ebb. In all the plants' activities in connection with the production of the 1933 lines became increasingly important. Some plants will begin production of new models early in October with the others swinging into line as the autumn wanes.

Some companies have begun to place orders for raw materials and to set delivery dates for materials previously ordered. The machine tool people are getting some business and steel releases have been made in a number of cases. The next few weeks will see increasing activity in the production work on the vehicle lines for 1933.

LOOK TO SHOWS TO SHOW THE WAY; REEVES IN CHARGE



ALFRED REEVES

New York, Sept. 29.—Unusual efforts are being put forth this year by the entire automotive industry to make the national shows at New York and Chicago the starting

(Continued on Page 7)

CONTINENTAL MOTORS ENTERS CONTRACT WITH DOMINION MOTORS, LTD.

Detroit, Sept. 29.—Another step in the enlarged automobile manufacing plans of the Continental Motors Corporation was announced today by President W. R. Angell, whereby Dominion Motors, Ltd., of Canada is permitted to make and sell the Continental-De Vaux in Canada.

Roy D. Kerby, president of Dominion Motors, closed the deal with Mr. Angell last night, the contract providing that the Continental-De Vaux will be produced by the Dominion organization under the name of Frontenac, already well known throughout Canada.

Kerby's company long has been a big factor across the border. Its plant is at Leaside, Ont., and covers fourteen and a half acres, has 600,000 square feet of factory space

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AUBURN REPORTS SALES FOR PERIOD ENDED AUGUST 31

Auburn, Ind., Sept. 29.—Sales of Auburn Automobile Co. during the three months ended August 31 totaled 4,279 cars of which 67 cars represented export sales.

For the nine months ended August, Auburn's total sales were 10,795 cars and export sales were 455.

In the 12 months ended November 30, 1931, total sales were 34,045 and export sales were 1,759.

HARVESTER PLANNING NEW TRACTOR PRICED $200 BELOW FARMALL

Chicago, Sept. 29.—International Harvester Company has been working for some time on a new, small tractor. While the price of this new machine has not yet been set, and cannot accurately be determined until the company goes intro production, it is understood that it will sell for about $200 under the price for the regular Farmall, or in the neighborhood of $525.

The new model will probably have a horsepower rating of about two-thirds that of the present big seller and, when completed, will enlarge the Farmall line to three models with approximately 25, 15 and 10 horsepower. The 15 h. p. size is the regulation Farmall.

The smaller Farmall indicates Harvester's intention to bring into its normal market, possibly by next spring, part of the millions of farms of 100 acres or less. The present Farmall can easily handle the work on a farm ranging from 175 to 200 acres, and it seems reasonable that the lessened original cost of the small model, together with its lower operating expense, should prove attractive to the millions of small farmers who feel that the present tractors do not meet their needs. In 1930 there were more than

(Continued on Page 7)

M. E. W. A. GROUP CLASSIFIES TAXABLE PARTS-ACCESSORIES

Chicago, Sept. 29.—What automobile accessories and parts are taxable under Section 606 C of the Revenue Act of 1932? The answer to this query is contained in an opinion prepared by attorneys for the Motor and Equipment Wholesalers' Association. The opinion of counsel, as announced today, is as follows:

"Under the prior acts, the court decided that 'articles primarily adapted' for use in motor vehicles were to be regarded as parts or accessories of such vehicles for tax purposes, even though there was some other use of the articles for which they were not so well adapted. Apparently Section 606 C was drafted with a view of eliminating confusion resulting from the effect of this and similar decisions under which many parts and accessories had escaped tax on the ground that they were

(Continued on Page 7)

ALLIS CHALMERS EXPANDS OUTLETS

Chicago, Sept. 29.—Allis-Chalmers Manufacturing Company has taken over the South American branch houses and inventory of B. F. Avery & Sons, Inc. The transaction, which will become effective October 1, will be made for a cash consideration.

The amount, however, will depend upon the value of the Avery inventory, which has not yet been determined, but which will probably total between $500,000 and $750,000. Allis-Chalmers will also collect for a consideration the Avery receivables, which are estimated at $2,000,000. The territory involved includes the republics of Argentina, Uruguay and Paraguay.

Allis-Chalmers formerly manufactured some lines for Avery's South American trade, but did not have any branches of its own there. This expansion is in line with Allis-Chalmers' intention to round out a full line of farm equipment, with distribution on a worldwide basis.

Company's sales of agricultural machinery this year, like those of the industry as a whole, have not been encouraging. Its industrial line, however, has been somewhat better, although below a year ago.

Bus Operators Refute Charges of Subsidization

(Continued from Page 1)

tary to or replacing city and suburban electric lines, leaving 32,500 in interurban common carrier service. Mr. Hill declared that the total tax bill in 1931 reached $36,825,000. He added that $31,000,000 was levied as special fees for the use of the highways and that the total tax bill has been boosted nearly 20 per cent. through the $8,000,000 imposed in Federal excise taxes.

"The rate of increase in our tax burden from year to year is startling," Mr. Hill continued, "and unless some means are employed to bring clearly before the pubilc and the legislators that these taxes are rapidly approaching confiscation, and, that rather than being further increased, they should be reduced in many cases and brought to a level that is fair and equitable, the main objection of our rail adversaries will be accomplished. Our costs of operation will then become such as to make it impossible for us to operate in any part of the country except between the great centers of population, thus deprving those of our citizens who have no other means of transportation of the convenience of this indispensable utility."

While expressing sympathy for the railroads in their effort to solve their own problems, the president of the bus association declared that the decline of 32 per cent. in annual rail passenger revenue during the last nine years could not be attributed to bus lines.

"In the same period the automobile," said Mr. Hill, "acknowledged to be the chief competitor of all commercial passenger carriers, including the motor bus, increased its registrations 187 per cent. In other words, during this period approximately 43,173,755 people dependant prior to 1920 upon commercial carriers for transportation, arranged to transport themselves. (Based on registration increase of 17,269,502 vehicles and an average of two and one-half persons per car.) In view of this great increase in the capacity of our transportation facilities, is it any wonder that the annual rail revenues fell off 32 per cent.?"

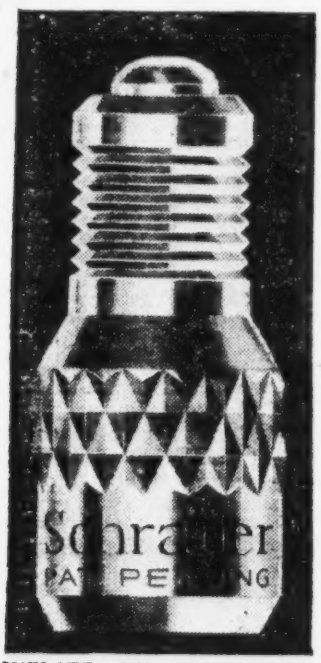
With respect to the important subject of Federal regulation, Mr. Hill continued:

"Beginning with the year 1926, the passenger bus operators of this country have been ably represented before each Congress in an earnest and honest effort to obtain fair, equitable and just regulation of interstate bus operation. In the seventy-first Congress a bill regulating the operation of interstate buses was passed by the House of Representatives, and, upon reaching its final reading in the Senate, seemed sure of enactment. At this

(Continued on Page 6)

There is no let-up in the human desire for CONVENIENCE

And where there's Convenience there's usually Economy. Give the motorist or driver an easier way to keep tires properly inflated, and he will be less likely to neglect this very important requisite to maximum tire mileage.



INFLATE AND TEST PRESSURE THROUGH VALVE CAP. Four operations saved in inflating every tire.

The Schrader Dublchek Valve Cap has been designed for that very purpose. It does away with the usual valve cap and dust cap. Besides making inflation, deflation and air-gauging a tire a matter of seconds instead of minutes, it represents:

—A permanent cap that can't be lost.

—Guaranteed air-tightness up to 250 lbs. if affixed according to directions.

—An effective guard against dirt, dust and grit.

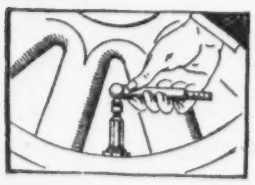
—A double check against loss of air.

FLEET OWNERS

will find Schrader Dublchek Valve Caps a highly profitable investment in tire economy and time saving. Obtainable through your regular source of supply.

SERVICE STATIONS AND ACCESSORY DEALERS

will find every motorist an easily interested prospect for Schrader Dublcheks. Order through your regular jobber. A. Schrader's Son, Inc., Brooklyn, Toronto, London—Makers of Pneumatic Valves since 1844.



TIRE VALVES **Schrader** TIRE GAUGES

Reg. U. S. Pat. Off.

DUBLCHEK VALVE CAP

BE SURE IT'S A SCHRADER—LOOK FOR THE NAME

TODAY AT THE N. A. M. B. O. MEETING

The following is a resume of the program for today's sessions of the National Association of Motor Bus Operators, being held at the Hotel Congress, Chicago:

9.30 A. M.—Florentine Room, Hotel Congress. "At the Wheel," a bus driver's views on the bus business, by Odell H. Chaffee, Greyhound Lines.

10.00 A. M.—"Cutting Costs and Building Revenue," a discussion by Edgar F. Zelle, Jefferson Transportation Company; O. W. Townsend, Teche Lines, Inc.; A. W. Riter, Sunshine Bus Lines; D. E. Saunder, Southern Kansas Stage Lines.

11.00 A. M.—Short stories on city and intercity operations, illustrated. Ten-minute speeches from representatives of city and intercity lines. E. Wotten, Chicago Motor Coach Company; James Hofguaard, Atlantic Greyhound Lines; T. B. O'Steen, Florida Motor Lines; F. M. Temple, Short Way Lines; E. M. Lunda, Community Traction Company.

1.00 P. M.—Luncheon, Gold Room, Congress Hotel. "Subsidy in Rail and Highway Transportation," Hon. Charles Brand, Congressman the Seventh Ohio District.

2.30 P. M.—Florentine Room, Congress Hotel. Presentation of Bus Transportation Awards; E. F. Zelle, presiding. Presentation by L. F. Stoll, publishing director, Bus Transportation.

3.30 P. M.—Unfinished business; new business; adjournment.

ALLIED SUPPLIERS EXPECT AUTOMOTIVE BUYING UPTURN SOON

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has been doing some machine tool buying, the total amount spent being reported as about $100,000. Continental Motors has some tool buying to do in connection with the new low-price car, to be produced by its De Vaux subsidiary.

October should see considerable purchasing by the automotive plants, but it will not be on the grand scale that once prevailed. As the various companies swing further into production on their new lines, the buying will increase. The steel and other supplies here note this effect of hand-to-mouth buying and remark that in other years orders would already be in hand awaiting release.

Union Truck Depot Planned for Omaha

Omaha, Neb., Sept. 29.—A new union truck depot which will compare favorably with those recently erected in Lincoln, Neb., Sioux City, Ia., and Kansas City, Mo., will be erected in South Omaha, site of the second largest stock yards in the country and suburb of Omaha, in the near future.

It is to be erected and managed by an incorporated company known as the South Omaha Union Truck Depot, Inc., and the incorporators are M. T. Hall, C. M. Michel and G. R. Peterson. The two latter are the managers of the Truckers' Headquarters, 25th and O Streets, South Omaha, and the new depot will be erected just north of the Truckers' Headquarters and will be only four blocks from the truck unloading docks of the Omaha Union Stock Yards.

WASHINGTON A. T. A. TO MEET MONDAY

Washington, Sept. 29.—The October meeting of the Washington (D. C.) Automotive Trade Association will be held at the Racquet Club, Monday, October 3.

Col. Leroy W. Herron will be the principal speaker. His address will be: "How the Washington Automotive Merchants and Their Sales Organizations Can Tie Up With National Advertising Appearing in the Newspapers."

SPARKS from DETROIT

Dealer to Dealer
* * *
Reynolds Spring Adds Jobs
* * *
Frank Jay Moving
* * *
The Leland Clan
* * *
Reproductions
* * *

Chris Sinsabaugh—Detroit Editor

ACTING on the theory that it takes a dealer to thoroughly understand the dealers' problems, George Graham, Rockne v. p. in charge of sales, has appointed as special representative of the vice-president's office Walter G. Herbert, whose headquarters will be in Philadelphia. In this Quaker territory this man Herbert is expected to be a tower of strength, a real Rockne of Gibraltar, so to speak.

This commentator (I'm getting to like that word) picked up the story at the Graham-Wiethoff table in our Fisher Building cafeteria, where Brother Herbert was the guest of honor. That's how I got his background.

* * *

FOR TWENTY YEARS Herbert has been selling automobiles in and around Philadelphia, with his brother, William, as his partner. They had Chandler and Cleveland for the life of those two makes and following the foldup and Brother Bill going to California, Brother Walter carried on as Willys-Overland distributor. In one year he handled 7,000 W-O's. And in between times he served several terms as president of the Philadelphia Automobile Dealers' Association. Now he is on the factory side, but still a dealer at heart.

* * *

AT THE APPLE PIE STAGE of this cafeteria banquet, Wiethoff told us of his boss, George Graham, going to the movies the other day and seeing "Mr. Robinson Crusoe." You know Doughlas Fairbanks, Sr., plays this and that while a castaway on the desert island he rigs up a home made radio.

It was while this radio was chirping the news bulletins of the day that the Rockne v. p. was startled to hear the news flash—"George Graham committed suicide this afternoon by jumping out of a twelfth floor window of a local hotel."

* * *

DOWN OUR CORRIDOR in the Fisher Building E. W. McIntosh, vice-president of the Reynolds Spring Company of Jackson, Mich., holds forth and it is from him that I get the good news that 800 employees will be put back to work at the Jackson plant between now and October 15.

This follows the company calling back 350 workers the earlier part of this month. The Bakelite plant has been operating seven days a week, twenty-four hours a day, since August 26. The cushion spring plant is in operation, but not on full time as yet.

* * *

FRANK JAY, head of activities of the A. C. F. Motors Company, a division of the American Car & Foundry Company, which specializes on buses, is moving to Philadelphia and the Detroit branch will be closed.

* * *

AS IN THE CASE of the Fishers les peres et les fils, with Charles T. Fisher, Jr., going strong in the banking business, we have the second generations of the Lelands bobbing up in the business world. Wilfred C. Leland, Jr., has become a member of the Frank Osuch Company, tax, trust and life insurance counselor. His automobile background includes a grandfather who founded the Cadillac and Lincoln companies, and a father who also was active in both those companies.

* * *

WHENEVER ED GANTNER of the sales division of Manz, the engraving house, comes over from Chicago he gives us a call. He hasn't been here for some time, but he makes up for it by sending two samples of Manz's monthly mailing campaign that specifically illustrate the company's direct process method of true reproduction of an automotive product.

To look at them makes you feel as if you were in an art gallery. One is a wonderful reproduction of the Fisher Napoleonic miniature coach, rich in colors and so much like the real article you fancy you are in H. J. C. Henderson's office, looking at one of them. The other is a four-color reproduction of a pearl-essenced Packard.

N. Y. STANDARD CUTS GASOLINE PRICE 1 CENT

New York, Sept. 29.—The Standard Oil Company of New York, Inc., yesterday reduced the tank wagon and service station prices of gasoline 1 cent a gallon in the New York metropolitan district, Long Island, Westchester, Connecticut, Albany and Buffalo. In Boston a reduction of 1½ cents a gallon was made. Other leading gasoline distributors in these localities have made similar reductions.

NEW CHEVROLET DEALER

Walnut Ridge, Ark., Sept. 29.—Pat Jansen of Pocahontas has opened a Chevrolet dealership in Walnut Ridge and will install equipment for a repair shop.

ALLEN IN ATLANTA

Atlanta, Ga., Sept. 29.—C. M. Allen has been appointed manager of the Atlanta branch of the General Motors Truck Company, officials of the company announced here today.

Retail Salesmen—This Is Your Page

This department is devoted to the interests of the retail sales division of the industry. Salesmen, this is your department. Automotive Daily News wants you to get something from this department that will help you in your work on the firing line. It wants you to pass on your own experiences, success, failures to help your brother salesmen. Send in your story in the form of a letter, or even a postal card, and let us get it ready for publication. Your achievement or your mistake may help another salesmen to make sales or avoid errors that cost you commissions.

Dealers read this page. Give us the benefit of your reactions on these problems that affect the work of your salesmen, the men on the firing line, the men who bring home the bacon or don't.

CONTESTS FOR CREATING SALES ENTHUSIASM

In the current issue of Field Facts, organ of the Automotive Electric Association, there is an interesting discussion of contests in the sales department and the value of such activities in bringing actual business into the shop. Human nature is still human nature, even if it resides in a salesman's earnest body. We all of us get tired of the prosaic everyday life. Something which dresses work up in the form of play, gives us fresh inspiration for hustling. We quote from Field Facts' interesting suggestions on what may be done with sales contests:

Whether you have two men on your selling floor or a dozen, you can't afford to overlook the potency of the contest as a stimulant to accessory sales. You may have tried a contest that didn't go over so big, but possibly there was some fundamental in contest management that you overlooked.

Of course, the contest idea is old, but age is no sin, for nothing that is really good gets stale with age. At any rate everyone gets a bang out of the right kind of a selling contest and the big thing is to avoid mistakes of execution.

Rivalry is, perhaps, one of the oldest emotions. At least it is as old as the ancient Greeks, who first introduced the contest in sport. The same sporting element of rivalry is strong in Americans, and the sales manager is wise who capitalizes this love of rivalry in his staff. This article attempts to outline a few fundamentals that should govern the contest.

1. The time element. The first point is of prime importance in staging a contest. The competition must not be closed after the party has gone dead but while interest is still at fever heat, so that the tag-enders or the runners-up can wish that they had "just another week." This feeling primes them for the next event.

The duration of a contest, of course, depends on circumstances, conditions and the object in view. If the event is aimed to stimulate the sale of a certain type of accessory, a week and not over a month would probably fit the case. If, however, it is the purpose to boost the sales volume all around, a contest might easily run from sixty to ninety days without loss of interest. It is usually wise to give the short contest the benefit of the doubt for nothing is more discouraging than a contest that has gone flat because of overdoing a good thing. Furthermore, the laggers get discouraged toward the end of the competition and cease trying to win.

And, of course, a contest should always be closed on the dot, with no "becauses" or "buts" taken into consideration. A contest that is held open longer than first announced is about as happy as a brideless wedding. It's poor sportsmanship and the men know it.

2. The theme of the contest must be fresh and timely. Several contests may be staged successively if a novel note is introduced into each subsequent event. National and international sports competitions of some sort are always popular. Men are just grown-up kids, even though some of us won't admit it. Following the seasonal popularity for horse racing, baseball, and so on, is a good rule to follow. Aviation is another idea that works exceptionally well.

The use of these contest themes dresses up the events. For instance, a contest with the Kentucky Derby theme will see the bulletin board transformed into a place where the latest news in track vernacular is posted. Betting on the side among the salesmen will further stimulate results.

An aviation contest turns the salesman into an aviator. For instance, each salesman is represented by a cardbord outline of plane, with his name lettered on the outside and his photo pasted on the outline of a pilot. As the results of the contest are tabulated each morning, the planes are moved forward via thumb tacks, according to the "distance" covered the previous day. Distance may be determined by volume or unit sales, according to points. The management sends "telegrams" to members of the staff, informing them of "progress," whether conditions ahead, et cetera. It's a lotta fun, don't let any one kid you+

3. Vary your contest structure. Sometimes it is well to award prizes for the largest number of spotlights sold. Then, again, on the number of suggested sales put over. Perhaps awards for the greatest volume increase over the previous week or the previous month. There are numberless variations, but be sure the contest idea doesn't get into a rut. Sometimes it is well to vary the contest by making it interdepartmental, the battery department vs. accessories, or automobile radio vs. something else. The contest on certain items is usually a winner.

The team idea has many advantages over the individual competition, because non-sellers can be included in the team. For instance, the shop mechanics can be brought into the selling picture, for they can often help their "team" by giving sales leads, encouraging a customer to get a new tail-light. The mechanics will be on the alert to detect worn-out cable, for example, replacement of which might save the motorist an inconvenient stop on a lonesome highway.

The stenographers and clerks can likewise be useful to the sales department providing they are given the proper incentive in a contest. Every one has friends, and the problem is to induce them to make an effort to bring them into the store.

GUSTIN MOTOR SALES TO HANDLE AUBURN

Louisville, Ky., Sept. 29.—V. F. Gustin, formerly in the automobile business at Cincinnati, has established the Gustin Motor Sales, 440 East Broadway, to distribute Auburn and Cord automobiles in Louisville. Auburn and Cord until just recently were distributed in Louisville by the Edwards Motors Company of Louisville and Lexington, which withdrew from Louisville to give its entire attention to its business at Lexington, Ky.

USED CAR DISPLAY

Atlanta, Ga., Sept. 29.—The Ernest G. Beaudry Motor Company, local Ford dealership, has opened a used car display and salesroom at 276-278 Peachtree St., N. E., with M. J. Siegel as manager.

Used Car Selling Prices

Automotive Daily News in this department offers for the benefit of its dealer and salesmen readers a compilation of prices at which used cars have within the past few days been offered for sale by reputable dealers in various cities. These prices will vary on condition and from other causes. They are not presented as being the exact prices at which these models should be sold, but simply as the prices at which they have been offered for sale by dealers in the various cities. Other cities will appear in subsequent issues of this paper.

Detroit

	1931	1930	1929	1928
Auburn 8	595-795	....	135	....
Buick Standard	495cp-685	345-495	245cp	100-150
Buick Master	....	....	195-295cp	....
Chevrolet	295c-395	185c-285	135-275	45c-95
Chrysler 6	....	350-395	245-285	75-145
Chrysler 8	685	435-495	275-365	165cp
De Soto 6	295	295	....	....
De Soto 8	395	....	....	....
Dodge 6	495	295	165-195	95-195
Dodge 8	545-645cp	295	....	....
Essex	225c-395	85cp-215	85c-125	22.50-30
Ford	225c-250	145r-195	50r-125	....
Graham 6	295	....	95-145	....
Hudson	425-475	395cp	125-275	....
Hupmobile 6	325-545	275	225-325	....
Hupmobile 8	595-695	....	345	....
La Salle	....	795	425-495	365
Marmon	575	165-325cpd	....	....
Nash 6	....	395	195-350d	145
Nash 8	695	....	....	....
Nash H. 8	....	....	....	....
Nash Advance	....	....	....	....
Oakland 6	385ccp	....	195cp-235	125cp-165
Oakland 8	295b	395	....	....
Oldsmobile	465-595	365	165c-200	75-145
Packard	....	795	385-595	265-295
Plymouth	....	195	95	....
Pontiac	395cp-495	195	95-195	50c
Reo	....	....	175	....
Studebaker Dictator	425	295-395c	....	....
Studebaker Commander	695	....	295-350	70-135
Studebaker President	....	295-595d	275	....
Willys-Overland	235	1606	69-135c	....
Willys-Knight 6	240c-285	165r-275c	....	....

d-De luxe. c-Coach. cp-Coupe. ccp-Convertible coupe. b-Brougham. t-Touring. r-Roadster. Where no distinguishing mark follows the price the car offered is a sedan.

Dealer Activities

IOWA

A large number of automobile dealers were among the more than fifty present at a painters' clinic, staged by the Standard Battery and Electric Company, 217 5th St., Waterloo West. The school and sales exposition was held in connection with the appointment of the firm as jobber of lacquer products in northeastern Iowa by the Sherwin-Williams Company. Luncheon and entertainment were furnished those in attendance.

• • •

There's a spot on the sales floors of the Mathey Chevrolet Company, 445 Iowa St., Dubuque, that's a hot one for cars that reach the designated circle. They never stay there any length of time, being outstanding bargains and featured as an outstanding buy for the week. The special is advertised in a manner designated to attract visitors to the show rooms of the company. A sample of the "on the spot" ads run every week is shown herewith.

• • •

OKLAHOMA CITY

The Oklahoma State Tire Dealers Association held its sixth annual convention September 21 and 22 at the Hucking Hotel, according to R. A. Billups, secretary-treasurer. Honor guests included P. D. Means of the Firestone company and many other executives of large tire manufacturing companies. More than 200 representatives attended the conference.

LOUISVILLE, KY.

Evans Motors, 831 East Broadway, Louisville, which leased a large sales and service building, and advertised a car to sell at $295 and up, at $95 down and $5 a week, will handle the American Austin. On Sunday morning, September 25, a drive through of thirty-two Austins arrived on the Evans floor, coming down from Pennsylvania, and including the full line of models.

• • •

The Richardson Chevrolet Co. of Glasgow has filed amended articles of incorporation changing its corporate name to the Ideal Chevrolet Company.

• • •

CHICAGO

Quite the most thrilling announcement along Michigan Ave. motor row for some time is that telling of the exchange of quarters between Reo and Lincoln. They won't have far to move, for the Lincoln retail branch and Thomas J. Hay, Inc., Reo distributor, are right across the street from the other. Removal date, it is made known by Tom F. Hay, is set for Oct. 1, and he adds that "by consummating this exchange, each organization will be housed in a building more nearly meeting its space requirements."

• • •

The De Soto organization seems to be taking lead hereabouts in annexing new dealers for the De Soto and Plymouth lines. The newest addition is Bernard Motor Sales, with headquarters at 2126 W. Chicago Ave.

AIR-MAZE

THE bill for dirt is the biggest bill automotive owners pay today. They pay for it in decreased performance, gasoline mileage, contaminated and short-lived oil, worn cylinders, hard carbon, burned bearings and all the other ills that follow the use of dirt and dust laden air. Your engine takes in 8400 gallons of air for every gallon of gasoline . . . just think what it means when that air is dirty. The one sure, complete way to prevent it is to use an Air-Maze . . . and you'll save a cent or more per mile when you do it! Write for the cost facts today.

AIR-MAZE CORPORATION, 314 Caxton Bldg., Cleveland, O.

DEALERS TRUCK OWNERS

It pays to sell Air-Maze, both in immediate profits and the friendship of your customers. This subject is becoming more vital every day—let us give you all the facts and show you profits too good to be overlooked.

The new Oil Bath Air-Maze is proving the most important cost-cutting device now available for truck and bus operators. Let us give you the definite figures and show you what Air-Maze will save on your equipment.

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday and Monday by
AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION
350 Hudson St., New York, N. Y.

O. J. Elder, President. H. A. Tarantous, Vice-President. Alexander Johnston, Secretary.
Entered as second-class matter August 27, 1925, at the post office at New York, N. Y., under the Act of March 3, 1879.
350 Hudson St., New York, N. Y. Telephone CA nal 6-1000.

MEMBER A. B. C.

Mail subscriptions to CIRCULATION DEPARTMENT 1926 Broadway.
Telephone TR afalgar 7-4500.

Subscription Rates: One year, $12.00; two years, $20.00 for United States and Canada, also Mexico, Cuba and Panama.
To Other Countries: One year, $15.00; two years, $26.00. Single copies 5 cents.

FRIDAY, SEPTEMBER 30, 1932

ADVERTISING AND BUSINESS HEADQUARTERS

Harry A. Tarantous, Business Manager 350 Hudson St., New York, N. Y.
B. B. Crighton, Assistant to Business Manager.

George M. Slocum, Manager, Detroit Bureau, 427 Fisher Building, Detroit, Mich.; phone Trinity 2-3500. Willard R. Cotton, Western Manager, 333 North Michigan Ave., Chicago, Ill.; phone Andover 2400. Metz B. Hayes, New England Manager, Little Building, Boston, Mass. Blanchard, Nichols & Coleman, American National Bank Building, San Francisco, Cal.; Lincoln Building, Los Angeles, Cal.; 1037 Henry Building, Seattle, Wash.
Address ALL Advertising and business correspondence to 350 Hudson St., New York city.

EDITORIAL DEPARTMENT

350 Hudson St., New York, N. Y. Telephone CA nal 6-1000.
Alexander Johnston, Editor. William C. Callahan, News Editor.
Statistical Department (registrations and specifications), P. J. Robas, statistician. Engineering Department, A. Benson Carleton, technical editor. Merchandising Department, Charles S. Zack, editor. Art Department, John Bauterfeld, director.
Detroit Bureau, Chris Sinsabaugh, editor, 427-8 Fisher Building, Detroit, Mich. Telephone Trinity 2-8500. Contributing editor, John C. Wetmore.

The Low Price Bracket

AUTOMOTIVE DAILY NEWS has spoken several times of the probability that 1933 will see a number of well known manufacturers offering cars in the definitely low price bracket. The Hudson organization has already taken the step with its interesting Essex Terraplane. There is no question that other time-honored manufacturers will follow this example and we shall probably see a number of interesting new offerings appealing distinctly to the deflated pocketbooks of America.

This trend to the production of a low priced motor vehicle is an obvious one, indeed an inevitable trend of the times in America. This country has changed its whole method of living in the last ten or fifteen years. We now live on a basis predicated on the use of motor transportation. This condition is so well understood that it needs no elaboration here. America simply has to have its motor transportation and in the relative volume that has existed during the past few years.

It scarcely needs pointing out that the buying of any necessity will vary with the amount of money that people in the aggregate happen to have. We have been through the worst depression, indeed we are not out of it yet, which any living man knows. The aggregate amount of money available for spending and the amount possessed by individuals has decreased largely in the past three years. Our people have accustomed themselves to going without many things they formerly bought. They have bought less of the things which they had to have. In our own field we have seen the result in motor vehicle owners using old cars and trucks far longer than they normally would.

With this condition existing, it has been inevitable that pople have tried to spend less for the automotive transportation that they must have. They have been forced to dispense with luxury and other characteristics that they normally demand and take cars in price classes below those in which they would normally purchase. The situation has had another effect in stimulating the sale of used cars, as obvious result of lowered income.

All this has been grist to the mill of the producers of vehicles in the lowest price bracket. It has also been an invitation to producers in the higher brackets to get into the division of the field which has the greatest appeal under present conditions. Hudson has already accepted the invitation and other well known makers will undoubtedly follow suit.

What will happen when the depression passes? This is a legitimate question and many manufacturers of cars in the medium and higher priced brackets are undoubtedly asking it today. The answer is that when the volume of aggregate and individual income gets back to what we are pleased to call normal proportions, the American buying public will return to its normal habits. It will buy motor transportation in proportion to its income. There will be demand in the medium and high priced brackets in exactly the same proportion that formerly existed. The makers who produce a worthy product in the lowest price bracket will continue to enjoy business as they have in the past.

It may be asked what will happen to manufacturers who enter the low-price field at the present time, once the depression has passed and spending resumes its normal volume? The answer to that is easy. Any manufacturer who produces a car in the lowest price bracket that is a worthy product, filling a real want, will not lack business. Our American buying public covers a wide range. We normally have a huge public able and willing to pay for just what it happens to want. At the present moment this division has been reduced enormously, but it will come back. We have a vast public able to buy cars in the lower price ranges, which will always furnish a permanent clientele for manufacturers turning out a product at moderate cost. Just now this class has been swollen to greater than normal proportions.

At any rate there are going to be some extremely interesting newcomers in evidence when the 1933 national shows open their doors.

Fighting Fallacies

Get at the facts in this West-Railroad Truck & Bus Bill
Be sure you know what you are doing before you vote this added calamity on Oregon!
C. C. Crow
Knows the Lumber Industry. He Also Knows What's Wrong With It!
Read
The West-Railroad Bill has nothing to do with Highway Protection. Arguments over truck taxes are merely to befuddle the public—to get your attention off the real purposes of the bill.
It Is a Fraud—the most deceptive, dangerous and vicious piece of Legislation ever attempted in Oregon.
The only purpose of the bill is to remove the only effective competition the railroads have.
We are Suffering from Hardening of the Arteries
Don't Take Our Word for It
Just Reason for Yourself
Trucks on the Highways are Oregon's Only Protection Against Exorbitant, Ruinous Railroad Rates!
Vote Down This Outrage—Vote 315 (X) No—Against the "Freight Truck & Bus Bill"

ALLIED TRUCK OWNERS, INC., in Portland, Ore., are carrying on a definite counter-attack against the organized opposition of the railway interests in the Northwest. Above is a reproduction of an advertisement appearing in the Portland newspapers and which members were requested to clip out and post in conspicuous places

B. O. P. MEETING

Minneapolis, Minn., Sept. 29.—Four hundred and fifty northwest dealers and salesmen attended a sales meeting conducted by the Buick-Olds-Pontiac Sales Company here. The session was addressed by Courtney Johnson, assistant general sales manager of the company, and W. R. Huber, sales promotion manager. O. L. Waller is the Twin Cities zone manager and made arrangements for the meeting.

COMING EVENTS

SEPTEMBER

29-30—**Chicago.** National Association Motor Bus Operators.
30-Oct. 1—**Dallas, Tex.** American Institute Mining and Metallurgical Engineers, Petroleum Division.

OCTOBER

2—**Buffalo, N. Y.** Society of Automotive Engineers' Production Meeting.
3-7—**Buffalo, N. Y.** National Metal Congress. Sponsored by American Society for Steel Treating, with co-operation of American Society of Mechanical Engineers, Institute of Metals and Iron and Steel Divisions of American Institute of Mining and Metallurgical Engineers, American Welding Society, Wire Association.
3-7—**Washington, D. C.** National Safety Council Meeting.
3-7—**Buffalo, N. Y.** National Metal Exposition, 174th Regiment Armory, W. H. Eisenman, 7016 Euclid Ave., Cleveland, director.
3-8—**Buffalo, N. Y.** National Iron and Steel Meeting.
4-5—**Niagara Falls, N. Y.** Empire State Automobile Merchants Association, Inc., Convention.
4-6—**Toronto.** Transportation Meeting, S. A. E., Royal York Hotel.
6-16—**Paris, France.** Passenger Car Show.
10-14—**Atlantic City, N. J.** American Gas Association.
13-22—**London, England.** Olympia Show.
17-22—**Atlantic City, N. J.** National Hardware Association, Accessories Branch.

NOVEMBER

11-19—**Glasgow, Scotland.** Motor Show.
14-16—**Atlanta, Ga.** National Tire Dealers' Association.
15-17—**Houston, Tex.** American Petroleum Institute Meeting.
18-Dec. 4—**Paris.** Aeronautical Show.

DECEMBER

2-3—**Detroit.** National Standard Parts Association Convention.
5—**New Orleans, La.** Association of Asphalt Paving Technicologists.
5-9—**New York.** Annual Meeting A. S. M. E.
5-16—**New York.** Power and Mechanical Engineering Exposition.
5-10—**Detroit.** Third Annual Joint Trade Show, National Standard Parts Association and Motor and Equipment Manufacturers' Association, Convention Hall.

JANUARY

7-14—**New York City.** National Automobile Show. Grand Central Palace.
7-15—**Los Angeles, Cal.** Los Angeles Motor Car Dealers' Association, twentieth annual show.
16-23—**Detroit.** Highway and Building Congress.
28-Feb. 4—**Chicago.** National Automobile Show. Coliseum.

FEBRUARY

11-18—**Kansas City, Mo.** Kansas City Motor Car Dealers' Show.
27-Mar. 14—**New York City.** Chemical Exposition, Grand Central Palace.

APRIL

20-21—**Cleveland, O.** National Petroleum Association.

At The

S. A. E. Production Meeting—Oct. 3

Also

A. S. S. T. Convention—Oct. 3 to 7

Before any other publication has an opportunity of printing the news of that meeting Automotive Daily News will have it in the hands of important men of the industry.

The S. A. E. meeting takes place on a Monday. Automotive Daily News is the only publication going to press in sufficient time to cover that meeting.

Advertisers desiring to reach these groups, together with sales and administrative executives in all important factories, should advise us at once regarding size of space desired.

The American Society for Steel Treating holding its convention in the same city—Buffalo—will be attended by hundreds who will receive Automotive Daily News each day of the meeting, October 3d to 7th. Additional hundreds who cannot attend either meeting will receive copies by mail.

Automotive Daily News

STANDARD OF N. J. REDUCES TRUCK ACCIDENTS BY TRAINING

The Standard Oil company of New Jersey, operating a fleet of 500 trucks and 200 passenger cars, has reduced its accident rate in the past few years by education of its drivers.

This is taken care of by the issuance of pamphlets, reminders, instructions and meetings where much stress is laid on the careful handling of equipment.

Complete instructions on this subject are contained in the company's instruction book on safe handling of petroleum products, and follows:

1. Learn and observe all local motor vehicle laws under which you operate, particularly regarding speed, parking, turning, etc.

2. STOP, LOOK and LISTEN at ALL railroad crossings, regardless of how local laws govern the action of trains at such points.

3. Observe Stop Street and arterial highway laws.

4. Do not operate trucks on which the brakes are not functioning properly. If you do not know how to adjust the brakes, have the motor vehicle inspector instruct you, so that it will not be necessary to go to an outside garage to have the work done.

5. In general, the vehicle approaching from your right has the right-of-way. Observe the local laws covering this matter, but be safe rather than sorry, and give up the right-of-way if necessary to avoid a collision.

6. Anticipate traffic movement so that you may be prepared for any emergency and also set an example of efficient vehicle handling to poor or inexperienced drivers.

7. Slow down and use extreme care when driving near children or where pedestrians are crossing unpoliced streets.

8. When turning to the right, signal either with the warning device or by hand, far enough in advance to warn anyone who may be behind you; keep close to right hand curb and make the turn at slow speed. Fast driving on sharp turns may result in a blow-out of a pneumatic tire which could result in a bad accident in heavy traffic.

9. When turning to the left, keep close to the left center of the road and give proper signal in advance of the turn. Proper use of the mirror will show you whether or not anyone behind you is disregarding your warning.

10. Always sound your horn before passing vehicles going in the same direction and always pass on the left. After passing do not cut in too quickly, as this may run the other vehicle off the road.

11. Do not pass a vehicle going in the same direction at an intersection, on a curve or near the crest of a hill.

12. Always maintain a safe distance between your truck and any vehicle you may be following. In traffic at low speeds this distance can be considerably less than on a main highway at high speed.

13. Keep your horn in good working order.

14. Keep your lights in good working order.

15. Keep your windshield and mirror clean.

16. Carry a good set of skid chains at all times and do not be afraid to use them. The effort required to install them may save your life.

17. Keep your vehicle under control at all times. Coasting down hill is ABSOLUTELY PROHIBITED. Put your truck in second gear to descend long grades and alternate between your service and emergency brakes so as not to burn up either.

18. Before backing up your vehicle, KNOW that nothing is directly in back of you. Failure to observe this simple rule results in more accidents than any other single cause.

19. Observe local parking ordinances particularly regarding fire hydrants, restricted zones, stop street, etc.

20. Avoid argument. Be courteous and polite at all times and under all conditions. BE CAREFUL UNDER ALL CONDITIONS.

In case of accident:

1. Get medical aid for any injured persons.

2. Get name and address, vehicle and operator's license number of other driver.

3. Get names and addresses of all witnesses.

4. Make complete report to your immediate superior following this up with a detailed report of circumstances and including a clear diagram of the layout.

REFRIGERATED TRUCK GROWTH RAPID IN NEBRASKA

A bright future for refrigerated trucks is indicated in Nebraska, particularly as regards short hauls, judging from the profitable operation and rapid increase in the number of such vehicles put in use in Omaha and Lincoln during the past few years.

The first trucking company to inaugurate this service, the Hutchinson Refrigerator Lines headquartering at Lincoln, Neb., has found it necessary to augment its equipment 150 per cent. during the five years it has been in existence, making a total of five three-ton International units equipped with refrigerator bodies now in use. Nearly a score of trucking companies operating from Lincoln, Omaha and neighboring cities and towns, have since added refrigerator equipment to their fleets.

The refrigerator truck has proved its worth especially around Omaha which is in the heart of the meat packing industry, serving as a supply center for hundreds of mid-Western cities and towns with a potential consumer list of more than 5,000,000 people. Just how valuable the refrigerator truck is proving to be is shown by the meat packers themselves in connection with meat distribution in Lincoln, 65 miles from big packing plants at Omaha.

For many years the big packers in Omaha all had branch houses in Lincoln. These branches were not profitable, but they had to be maintained for the convenience of customers. Carloads of meat were shipped to Lincoln from Omaha each week and were then parceled out and transhipped from the Lincoln coolers to markets in the South Platte trade territory. This required considerable delay and several handlings of the provision.

Now, however, these branch houses have all been closed and the packers are shipping their meats by refrigerated trucks to Lincoln and surrounding territory. These shipments are by contract carriers, thus providing an excellent source of revenue for private truckers, and making it profitable for a number of truck lines to add new truck and refrigerator equipment. Since the truck system has been put into use, the packers state that the Lincoln business is showing a profit for the first time in more than a decade.

This experience of the packers with reference to short hauls in one small zone is indicative of what may be looked for in the way of expansion of such truck service in the near future. The rails will continue to get the long haul business, but the short haul of fresh meat bids fair to increase tremendously within the next three or four years.

TRUCK RECIPROCITY BY NO. CAROLINA-VIRGINIA

Raleigh, N. C., Sept. 29.—The new reciprocity agreement for automobiles and trucks recently completed with Virginia considerably enlarges the privileges of owner-operated cars and trucks as well as for-hire trucks in interstate commerce, it was pointed out by the Highway Commission.

The agreement provides that owners of automobiles or trucks may operate their trucks in either state for the duration of their regular license and not be required to buy two licenses.

They love it in December as they do in May!

SPRING breezes blow through the honeysuckles and the real estate agents do their stuff. The L. Jasper Gwumps go out to the outskirts and settle down suburban. Swell time to own a car, thinks Jasper, but Essential Expenses intervene. It's only ten minutes to the station, and the a.m. hike keeps down the pelican pouch. So L. Jasper puts off automotive purchasing.

BUT autumn arrives, with frost, and winds blowing blue. A little walk in the morning is fine exercise, says L. Jasper. Especially for the young folks. But, well—ahem, an automobile wouldn't go bad, so let's ring up that nice salesman!

Pounding the pavement is no fun when it's too cold, or too hot. Folks are built for comfort—the year 'round. Transportation has no season. Neither has selling automobiles, because the customers use them every season.

This year, the prospects are particularly bright for fall sales in New York. Prospects who were cool in the Spring have warmed up. Rising prices, rising volume, and rising hopes—should make rising car sales! Go after them!

The News is on the job twelve months a year, too. It reaches most of the families in this market—all the time. It tells your story to a majority of owners, prospects, buyers. And it costs so little that you can afford to use it twelve months a year. It costs a lot less than the cost of *not selling!* And it can help you to put more entries on the registration lists, and more prospects on the dotted line—this year! Better business with The News—now!

The News, *New York's Picture Newspaper*

220 EAST FORTY-SECOND STREET, NEW YORK

Tribune Tower, Chicago + + Kohl Building, San Francisco

BUS OPERATORS DISCUSS SAFETY AT ANNUAL MEETING

(Continued from page 2)

stage of its progress, however, through the adoption of a motion to recommit, the bill was killed.

"Commenting on this action of the Senate, Senator Couzens stated from the floor of the Senate that this legislation had been killed through the influence of the railroad interests. To the best of my knowledge, this statement went unchallenged and I think, therefore, it is safe to assume it was true.

"The passenger bus interests of the United States, as represented by this association, favor equitable and just regulation of interstate buses, providing, of course, such regulation is designed to protect the public interest."

In concluding Mr. Hill suggested to the convention that it would be most helpful if rail and motor bus executives could get together and discuss their mutual problems with the idea of solving them in the interest of maximum public service, rather than continue a legislative warfare which is bound to react to the disadvantage of the public.

David E. Lilienthal today told the National Association of Motor Bus Operators that the state legislatures are meeting the transportation problems with a "considerable degree of effectiveness, but Congress is still laggard." The address by Mr. Lilienthal, who is a member of the Wisconsin Public Service Commission, was one of the features of the afternoon session.

The safety phase of the program was in the form of a report of the association's safety committee, headed by Marcus Dow of Cleveland, safety director for the Greyhound Management Company. Mr. Dow's report disclosed that bus lines are the safest medium of highway transportation, made so by daily inspections of equipment, courses and instruction and training for drivers, enforcement of orders requiring drivers to stop at rail-highway crossings and to know state and municipal traffic regulations, scanning of the personal records of all drivers and rewards for those who establish records for the safe handling of their buses.

Another feature of today's session of the convention was an address by John Blood, member of the Kansas State Legislature, who scored the unfair propaganda being circulated by the forces which would use high taxation as a weapon to discourage highway transportation and deny this service to 50,000 communities entirely dependent upon motor vehicles.

Mr. Lilienthal said in part:

"This clash between the giant of the rails and its relatively young competitor of the highways is no matter of simply private concern. Every member of the community is vitally concerned, since we are all utterly dependent upon effective transportation. Furthermore, we of the 'general public' are a direct party in interest, since the railroads are quasi-public institutions, and the motor vehicles operate upon roads which have been built to promote commerce and serve the public welfare. The thousands upon thousands of investors in steam and electric railroad securities—which include, of course, great banks and insurance companies—cannot ignore this development. Nor is the change which is in progress without an element of the dramatic, for it may change our children's lives as radically as the perfection of the railroad changed that of our grandfathers."

Contending that no form of transportation has any vested right which can stand in the way of public interest, Mr. Lilienthal said:

"In this convention and elsewhere your counsel and you technical men have doubtless advised you as to your own best interests, as the owners and operators of the motor bus lines of the country. The railroads are constantly advised as to where their economic interest lies, and the interests of their investors. But what about the general public interest, the interest of those who are dependent upon transportation for the continued functioning of community life? Upon the background of this history which I have described, of another great economic competition between forms of transportation two principles seem to me to be apparent of present-day vitality."

The two principles enunciated by Commissioner Lilienthal are that no existing form of transportation has any vested right which can stand in the way of reasonable progress toward a more economical or convenient form of transportation for the general public, and that new forms of transportation should not expect to be free from reasonable taxation and regulation.

STUDEBAKER TRUCK DEALERS

South Bend, Ind., Sept. 29.—The Studebaker Corporation today announced the following new truck Inc., Charlottesville, Va., Akron Truck Sales Company, Akron, O., and Frank E. Leifert, amestown, N. D.

TRUCK OPERATORS SEE BIG GAINS IN INDANA

Richmond, Ind., Sept. 29.—Officials of trucking, rail and traction lines of this city, prominent freight terminal of eastern Indiana, report that the last few weeks have brought a considerable increase in incoming, outgoing and through freight traffic.

Headquarters offices of the motor distributing corporation, which maintains a terminal here, said that the last month had brought a 50 per cent. increase in freight volume, the bulk of which was outgoing.

Truck freight lines report that long distance hauling passing over routes through the city has been increased by one-third. Dayton and western Indiana traction officials said there had been an increase in freight handling.

An increase in the volume of freight handled during the last month also was reported by officials of the Chesapeake & Ohio Railroad. It was said the road is operating six more freight trains each way a day than a month ago and that incoming and outgoing freight had increased gradually.

The Pennsylvania Railroad offices here this week began operation of an additional freight train a day each way between Richmond and Logansport as a result of increasing freight volume, resulting in the calling of two extra crews for duty.

FLORIDA GAS TAX

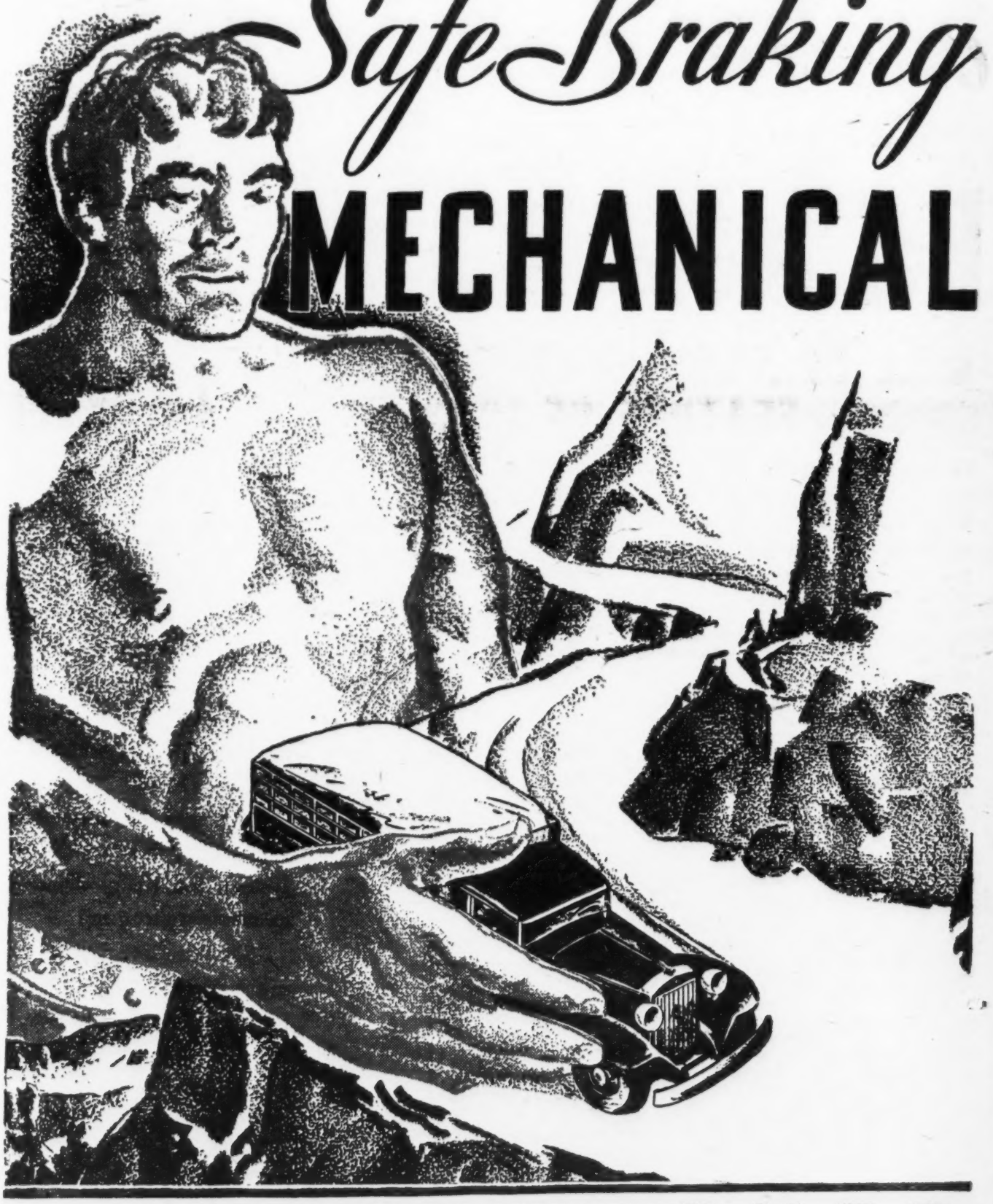
Tallahassee, Fla., Sept. 29.—State Comptroller Ernest Amos reports that Florida consumed 14,584,637 gallons of gasoline during August, compared with 14,857,023 in July. Receipts from the state tax of 7 cents a gallon totaled $1,020,924.62 for August, as against $1,039,991.61 in July.

LOS ANGELES SHOW SET FOR JANUARY 7 TO 15

Los Angeles, Cal., Sept. 29.—Dates for the twentieth annual automobile show sponsored by the Los Angeles Motor Car Dealers Association have been announced as January 7 to 15, 1933, according to Burt Roberts, executive secretary of the association.

ADDS HUDSON LINES

St. Paul, Minn., Sept. 29.—The appointment of Warren-Given, Inc., 917 Grand Ave., Buick dealer, as a dealer for Hudson and Essex automobiles, has been announced by H. E. Warren and Harry S. Given, officials of the company. The company will retain its Buick dealership. The company has maintained an automobile business in St. Paul for the past sixteen years.



M. E. W. A. GROUP CLASSIFIES TAXABLE PARTS-ACCESSORIES

(Continued from Page 1)

not primarily adapted for use on automobiles and trucks, since they might be used on boats, tractors, etc.

"It is our opinion that a proper interpretation of the act is that:

"(a) 'Parts or accessories' primarily adapted for use with automobiles are taxable. Article 41 of Regulations 46 defines parts and accessories as follows:

"'The term 'parts or accessories' for an automobile truck or other automobile chassis or body, or motorcycle, includes (2) any article the primary use of which is to improve, repair, replace, or serve as a component part of such vehicle or article, (b) any article designed to be attached to or used in connection with such vehicle or article to add to its utility or ornamentation, or (c) any article the primary use of which is in connection with such vehicle or article whether or not essential to its operation or use.'

"(b) The parts specifically listed in Section 606c are taxable whether or not they are primarily adapted for use with automobiles.

"We conclude, therefore, that any articles not enumerated in Section 606c and not primarily adapted for use with automobiles are not taxable under the act."

LIBERTY ANNOUNCES RATE ADJUSTMENT

New York, Sept. 29.—Declaring that "forced circulations are uneconomic for both publisher and advertiser," Macfadden officials today announced a lowered circulation guarantee for Liberty, and a correspondingly lowered basic rate.

The new Liberty guarantee is 2,174,000 and the new black-and-white page rate is $4,000. This maintains the black-and-white rate-per-page-per-thousand at $1.84, unchanged from its position at the previous guarantee of 2,310,000 and rate of $4,250.

Distinguishing between rate adjustment, with cost-per-thousand pegged at the old figure, and rate reduction with cost-per-thousand actually lowered, Liberty announces in addition to the adjustment of all rates an additional reduction of color process, back cover and line rates.

That present conditions would normally bring about a decline in magazine circulations, and that most magazines have applied pressure to resist the trend, is Liberty's contention. This is backed by an analysis of newsstand, boy and subscription circulations, showing that, while magazine circulations have declined only 5 per cent. during the last year (first six months 1932 vs. first six months 1931), newsstand circulations have dropped 14 per cent., subscriptions less than 1 per cent. and boy sales are actually up 2 per cent. (During the same period Liberty newsstand sales dropped 7.5 per cent., boy sales 12.4 per cent. and subscriptions are still less than 1 per cent. of total circulation).

NEW FORD DEALER

Camden, Ark., Sept. 29.—Saxon-Mann Motor Company has been formed here and has secured the Ford dealership. Marvin Mann and C. L. Saxon own the company.

LOOK TO SHOWS TO SHOW THE WAY; REEVES IN CHARGE

(Continued from Page 1)

points for definite revival in the business of motor transportation.

Alfred Reeves, vice-president and general manager of the National Automobile Chamber of Commerce, has assumed the management of the shows as part of his duties. With the show committee, Messrs. Hastings, Erskine and Swayne, Mr. Reeves is working to make this the most important exhibition in automotive history.

Innovations in decoration are to be inaugurated and exhibitors will be allowed to equip their booths with their own rugs and special furniture. A number of interesting special exhibits are being arranged.

Unusual efforts are being put forth to attract the trade in all its branches. Passenger car and truck dealers in the New York and Chicago areas will receive six tickets, good any day, beside trade day admissions. All other dealers will receive three tickets. There will be 30,000 trade day tickets distributed among dealers.

Shop equipment men and accessory store proprietors will receive 15,000 trade day tickets. Fleet owners will get 10,000 tickets to trade days. There will be 200,000 tickets distributed to the shop equipment section. Jobbers of the M. E. A. will receive six tickets for each day.

The industry believes that 1933 will be a buying year and every endeavor is to be made to have the national shows contribute to bringing about a definite revival of automotive business.

on the Curves—

POWER BRAKES

WILL BE THE BIG TRUCK SELLING FEATURE OF 1933

The elimination of wheel lock and loss of steering control on the curves is through an automatic front wheel brake release in proportion to the angle of turn—an exclusive feature which can be included in front axle design.

Just put any truck driver, a safety official or Liability Insurance man at the wheel of the truck equipped with these brakes—and you will see why they will prove the deciding factor in many a sale.

The linkage, under straight ahead driving conditions, applies under driver's control, the giant stopping force of car momentum uniformly to each wheel. On curves, an automatic front wheel brake which lessens braking force in direct proportion to the angle of turning, may be included in the axle design.

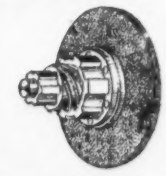
As the power unit utilizes the power of car momentum derived from wheel traction, it is always proportioned to the speed and load. It also offers decided economy advantages over systems depending on fuel-using boosters for braking.

Investigate the many other reasons why Stewart-Warner Power Brakes and Stewart-Warner Pedal-Operated Wheel Brakes offer unequaled safety and economy advantages for trucks, motor coaches and automobiles of every price class. They will prove a big selling feature for cars on which they are installed. Stewart-Warner Brake Systems are designed for factory installation only.

Our engineers are at your command.
Stewart-Warner Corporation, Chicago, U. S. A.
6050 Cass Avenue, Detroit, Michigan.

How Stewart-Warner Mechanical Power Brakes Work

The human foot on the Stewart-Warner Brake Pedal—no higher than a foot accelerator—



controls this Mechanical Foot which harnesses the giant force of car momentum to apply—

these "non-grabbing" Stewart-Warner rigid, two-shoe, non-energizing Wheel Brakes.

BRAKE SYSTEMS

HARVESTER PLANNING NEW TRACTOR PRICED $200 BELOW FARMALL

(Continued from page 1)

3,700,000 farms in the United States alone with an acreage of 100 or less out of the total of over 6,200,000 farms in this country.

While no definite date has as yet been set for the beginning of production, the logical time to start this work would be around the first of the year. According to reports in the trade, however, assembly may be started before that time. Normally a volume of 100 tractors a day could be reached by March, even though sales to the ultimate consumer would not materialize much before that date. A rate of 100 machines a day by March is in line with previous schedules in bringing out new models.

CONTINENTAL MOTORS ENTERS CONTRACT WITH DOMINION MOTORS, LTD.

(Continued from Page 1)

and a production capacity of 1,500 units monthly.

Dominion Motors has a Canadian organization of 375 dealers, and for the eight months of this year its Dominion-made cars have been fourth in sales in the Province of Ontario. The Kerby organization and its predecessor, Durant of Canada, have built and sold more than 100,000 Red Seal engined cars in Canada.

RAND URGES 60-DAY PAYROLL INCREASE

New York, Sept. 29.—Leading manufacturers of the country were urged by James H. Rand, Jr., chairman of the board of Remington Rand, Inc., in a statement made this week, to increase their pay rolls for at least sixty days as a means of boosting the public buying power so that the present upward trend might be turned into a solid revival.

Mr. Rand announced that his own company was increasing its payrolls 50 per cent. and expected to have its eight major plants on a four-day per week basis or better by October 1.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
Austin	400	225	Own	L	4	2.2x3	45.6	7.8	13@3200	G	Hex	Rock	Spic	Own	Til	Gra	Aut	W-G	3	Sal	Sp	5.25	O4M	76.5	75	1210	18x3.75	18x3.75
Autocar R	1½	2250	Own	L	6	3¾x4¾	314.0	33.7	75@2400	G	G & O	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Own	Sp	33.5	LO4IHM	380	159	5370	20x7.00	20x7.00DB
Autocar RE	2	2300	Own	L	6	3¾x4¾	314.0	33.7	75@2400	G	G & O	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Own	Sp	33.5	LO4IHM	380	159	5400	20x7.50	20x7.50D
Autocar RF	2	2450	Own	L	6	3¾x4¾	314.0	33.7	75@2400	G	G & O	Br-L	Spic	Ross	Str	P	DR	Own	4	Own	Sp	33.0	LO4IHM	380	159	5630	20x8.25	20x8.25D
Autocar RG	2½	2600	Own	L	6	3¾x4¾	314.0	33.7	75@2400	G	G & O	Br-L	Spic	Ross	Str	P	DR	Own	4	Own	2R	39.3	LO4IHM	460	159	5880	34x7	34x7D
Autocar A	2½	3000	Own	L	6	4 x4¾	358.0	38.4	84@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	Sp	33.0	LO4IV	460	150	6350	20x8.25	20x8.25D
Autocar D	3	3500	Own	L	6	4 x4¾	358.0	38.4	84@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	39.3	LO4IV	460	150	6375	34x7	34x7D
Autocar DE	3½	3850	Own	L	6	4 x4¾	358.0	38.4	84@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	40.7	LO4IV	519	150	6890	20x9.00	20x9.00D
Autocar DF	3½	3950	Own	L	6	4 x4¾	358.0	38.4	84@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	40.7	LO4IV	519	150	7220	20x9.00	20x9.00D
Autocar DH	4	4150	Own	L	6	4 x4¾	358.0	38.4	84@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	54.3	LO4IV	519	150	7450	36x8	36x8D
Autocar N	4	4600	Own	L	6	4¼x4¾	404.0	43.4	94@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	5	Own	2R	45.6	LO4IV	519	191½	7990	20x9.75	20x9.75D
Autocar NE	5	4725	Own	L	6	4¼x4¾	404.0	43.4	94@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	5	Own	2R	50.1	LO4IV	519	149	8300	22x9.75	22x9.75D
Autocar NF	5	4800	Own	L	6	4¼x4¾	404.0	43.4	94@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	5	Own	2R	42.1	LO4IV	519	191½	8350	22x9.75	22x9.75D
Autocar NH	5	4925	Own	L	6	4¼x4¾	404.0	43.4	94@2500	G	G & O	Long	Spic	Ross	Str	P	DR	Own	5	Own	2R	50.1	LO4IV	519	149	8350	22x9.75	22x9.75D
Autocar S	5	5500	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	54.0	LO4IV	544	158	8700	22x9.75	22x9.75D
Autocar SE	6	5800	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Own	4	Own	2R	54.0	LO4IV	544	158	8850	22x10.50	22x10.50D
Autocar C	7½	6600	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Br-L	12	Wis	2R	120.5	LO4IV	664	158	10950	24x10.50	24x10.50D
Autocar CF	7½	6900	Wak	L	6	5 x5¾	677.0	60.0	126@1800	G	Own	Br-L	Spic	Ross	Str	P	DR	Own	12	Own	2R	120.5	LO4IV	664	164	11280	24x10.50	24x10.50D
Autocar CF	7½	6900	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Own	12	Own	2R	88.5	O4IA	544	192	9700	22x10.50	22x10.50D
Autocar T	7½	6500	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Br-L	12	Own	2R	87.6	O4IA	660	192	10700	24x10.50	24x10.50D
Autocar TE	8½	6800	Wak	L	6	5 x5¾	677.0	60.0	126@1800	G	G & O	Br-L	Spic	Ross	Str	P	DR	Br-L	12	Own	2R	87.6	O4IA	660	195	10950	24x10.50	24x10.50D
Autocar TF	8½	6800	Wak	L	6	5 x5¾	677.0	60.0	126@1800	G	G & O	Br-L	Spic	Ross	Zen	P	NE	Br-L	12	Wis	2R	96.0	T4IA	664	180	12300	24x10.50	24x10.50D
*Autocar FE	20	9500	Ste	L	6	5¼x6	780.0	66.2	156@1800	G	G & O	Br-L	Spic	Ross	Zen	P	NE	Br-L	12	Tim	Wo	99.6	T6IA	718	198	16300	22x9.75	22x9.75D
**Autocar 6GE	15	11000	Ste	L	6	5¼x6	780.0	66.2	156@1800	G	G & O	Br-L	Spic	Ross	Zen	P	NE	Br-L	12	Tim	Wo	99.6	T6IA	718	198	16300	22x9.75	22x9.75D
***Autocar HS	3½	4600	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2R	54.3	O2IM	516	114	7600	40x8	40x8D
***Autocar SMS	3½	4800	Own	L	4	4¼x4¾	404.0	43.4	94@2500	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2R	54.3	O2IM	516	114	7900	40x8	40x8D
Brockway 80 C	*9500	1215	Con	L	6	3⅝x4	214.7	27.3	71@3200	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	36.2	CB4IM	248	149	4975	20x6.00	20x6.00D
Brockway 90 C	*11500	1525	Con	L	6	3⅝x4⅜	248.2	27.3	70@3200	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	L4IH	353	149	4355	20x6.50	20x6.50D
Brockway 92 C	*12500	1800	Con	L	6	3⅝x4⅜	248.2	27.3	70@3200	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	L4IH	353	149	4450	32x6	32x6D
Brockway 120 C	*15000	1990	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Tim	Sp	38.5	L4IH	353	156	5500	32x6	32x6D
Brockway 140 C	*17500	2495	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2R	43.5	L4IHV	386	156	6100	32x6	32x6D
Brockway 141 C	*19500	2935	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2R	46.2	L4IHV	380	170	6500	32x6	32x6D
Brockway 170 C	*19500	3160	Con	H	6	4½x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2R	46.6	L4IHV	380	170	7100	32x6	32x6D
Brockway 175 C	*19500	3660	Con	H	6	4½x4¾	427.5	45.9	100@2400	C	G & O	Ful	Spic	Ross	Zen	P	*Aut	Ful	5	Wis	2R	46.6	L4IHV	380	170	7200	34x7	34x7D
Brockway 195 C	*22000	3820	Con	H	6	4½x4¾	380.9	40.8	89@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2R	52.4	L4IHV	471	170	8100	34x7	34x7D
Brockway 220 C	*25000	4560	Con	H	6	4½x4¾	427.5	45.9	100@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2R	50.7	L4IHV	546	170	8675	36x8	36x8D
Brockway 260 C	*28000	5850	Con	H	6	4½x5¼	501.0	48.6	120@2200	C	G & O	Ful	Spic	Ross	Zen	P	*Aut	Ful	4	Wis	2R	50.7	L4IHV	546	212	9000	22x10.50	22x10.50D
Chevrolet	½	345	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	3	Own	Sp	13.6	O4IM	101	109	*1880	19x4.75	19x4.75
Chevrolet	1½	520	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33.4	——	—	131	2700	30x5	32x6
Chevrolet	1½	575	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33.4	O4IM	170	157	3015	30x5	30x5D
Diamond T 210 S F	1½	545	Her	L	6	3⅜x4¼	228.0	27.3	60@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	WG	4	Cla	Sp	—	L4IH	196	135⅛	3100	20x5.50B	20x6.50DB
Diamond T 210 FF	1½	565	Her	L	6	3⅜x4¼	228.0	27.3	60@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	—	L4IH	196	135⅛	3100	20x5.50B	20x6.50B
Diamond T 240 A	1¾	795	Her	L	6	3⅜x4¼	228.0	27.3	60@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	—	L4IH	219	137	3500	20x6.00B	32x6P
Diamond T 240 A	2	995	Her	L	6	3⅜x4¼	263.0	31.5	68@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	—	L4IH	350	155	4200	20x6.50B	20x6.50DB
Diamond T 310	2½	1295	Her	L	6	3¾x4¼	282.0	33.7	70@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	Cla	5	Cla	Sp	—	L4IH	350	155	4700	20x7.00B	20x7.00DB
Diamond T 320	3	1695	Her	L	6	4 x4½	339.0	38.4	100@2800	G	G & O	Borg	Spic	Ross	Zen	P	Aut	Cov	5	Cla	Sp	—	L4IHV	350	160¾	5400	20x7.50B	20x7.50DB
Diamond T 410A	4	1995	Her	L	6	4 x4½	339.0	38.4	100@2800	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Tim	Sp	—	L4IHV	408	168	6000	20x7.00B	20x8.25 DB
Diamond T 510	4	1995	Her	L	6	4 x4½	339.0	38.4	100@2800	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	4	Cla	Sp	—	L4IHV	408	199	6100	20x7.50	20x7.50DB
Diamond T 410B	2-2½	2135	Her	L	6	4 x4½	339.0	38.4	100@2800	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Wis	2 R	—	L4IHV-T	408	176½	6400	20x8.25B	20x8.25DB
Diamond T 504 A	3	2650	Her	L	6	4 x4½	339.0	38.4	100@2800	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	—	L4IHV-T	408	184	6400	20x8.25B	20x8.25DB
Diamond T 506 A	3	2950	Her	L	6	4¼x4½	383.0	43.3	91@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	L4IHV-T	499	169	7500	20x9.00B	20x9.00DB
Diamond T 603	3-4	3395	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	—	L4IHV-T	499	187½	7500	20x9.00B	20x9.00DB
Diamond T 606 B	3-4	3695	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	—	W4IA	552	178	9300	22x9.75B	22x9.75DB
Diamond T 750	4-5	4925	Her	L	6	4⅝x5¼	529.0	51.4	114@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Br-L	7	Own	Wo	—	L6IHV-T	571	189½	8300	26x8P	36x8P
*Diamond T 801	4	4140	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	SpicBlo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W4IA-T	238	190	11000	34x7P	34x7DP
*Diamond T 1201	6	5500	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	G & O	Cov	SpicBlo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W4IA-T	238	190	11700	36x8P	36x8DP
*Diamond T 1602	8	6400	Her	L	6	4⅝x5¼	529.0	51.3	125@2000	G	G & O	Br-L	SpicBlo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W4IA-T	238	194	12500	36x8P	36x8D
*Diamond T 1603	8	7500	Wak	L	6	5 x5¾	677.4	60.0	125@2000	G	G & O	Br-L	SpicBlo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	—	W4IA-T	238	194	12500	36x8P	36x8D
Dodge Bros. UF 10	½	375	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Un	Own	Car	P	DR	Own	3	Own	Sp	12.8	O4IH	121	109	1925	19x5.00	19x5.00
Dodge Bros. F 10	½	445	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Un	Own	Car	P	DR	Own	3	Own	Sp	12.8	O4IH	121	109	1975	19x5.23	19x5.25
Dodge Bros. G 20	¾-1	597	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	175.8	131	2520	17x7.50	17x7.50
Dodge Bros. G 21	¾-1	622	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	175.8	157	2670	17x7.50	17x7.50
Dodge Bros. UG 20	¾-1	537	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	175.8	131	2450	17x7.50	17x7.50
Dodge Bros. UG 21	¾-1	562	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	175.8	157	2600	17x7.50	17x7.50
Dodge Bros.	1	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Un	Han	Zen	P	DR	Own	4	Own	Sp	33.4	O4IH	208	133	2690	20x6.00	32x6
Dodge Bros.	1	525	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	176	131	2490	20x6.00	32x6
Dodge Bros. UG 30	1½	550	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	176	157	2640	20x6.00	36x6
Dodge Bros. UG 31	1½	585	Own	L	6	3¼x4¼	211.5	25.3	60@3100	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	176	131	2560	20x6.00	32x6
Dodge Bros. G 30	1½	595	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	187	136	2581	20x6.00	32x6
Dodge Bros. UF 30	1½	610	Own	L	6	3¼x4¼	211.5	25.3	60@3100	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	176	157	2710	20x6.00	32x6
Dodge Bros. G 31	1½	670	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2757	20x6.00	32x6
Dodge Bros. UF 31	1½	695	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	187	136	2631	20x6.00	32x6
Dodge Bros. F 30	1½	770	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2807	20x6.00	32x6
Dodge Bros. F 31	1½	770	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O6IHV	273.2	153	3575	20x6.00	32x6S
†Dodge Bros. UGS 50	1½-3	875	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	36.1	O6IHV	273.2	153	3650	20x8.00	32x8S
†Dodge Bros. GS 50	1½-3	935	Own	L	6	3¼x4¼	211.5	25.3	60@3100	C	Fed	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	305	140	3780	20x6.00	20x6.00D
Dodge Bros. F 35	1½	1425	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	305	165	3972	20x6.00	20x6.00D
Dodge Bros. F 36	1½	1485	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	50.0	O4IH	229	136	3345	20x7.00	20x7.00D
Dodge Bros. G 43	2	795	Own	L	6	3¼x4⅜	217.7	25.3	73@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	50.0	O4IH	229	165	3470	20x7.00	20x7.00D
Dodge Bros. G 44	2	825	Own	L	6	3¼x4⅜	217.7	25.3	73@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	4	Own	Sp	43.7	O4IH	350	150	5173	20x6.50	20x6.50D
*Dodge Bros. F 40	2	1995	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	165	5211	20x6.50	20x6.50D
*Dodge Bros. F 41	2	2085	Own	L	6	3-⅜x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	190	5311	20x6.50	20x6.50D
Dodge Bros. F 42	2	2185	Own	L	6	3⅜x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	5	Own	Sp	50.0	O6IHV	365	158	4450	20x7.00	20x7.00D
†Dodge Bros. GS 55	2-4	1269	Own	L	6	3¼x4⅜	217.7	25.3	73@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	50.0	O6IHV	365	158	4450	20x7.00	20x7.00D
Dodge Bros.	3	1565	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Fed	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	165	4520	32x6	32x6D
Dodge Bros.	3	1615	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Fed	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	185	4715	32x6	32x6D
Dodge Bros.	3	1615	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Fed	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	185	4715	32x6	32x6D
Dodge Bros. F 60	3	2645	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	2 R	56.0	O4IH	416	146	5543	32x6	32x6D
*Dodge Bros. F 61	3	2575	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH	416	170	5789	32x6	32x6D
*Dodge Bros. F 62	3	2695	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH	416	195	5901	32x6	32x6D
Dodge Bros. G 80	4	5250	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	62.7	B4IA-T	650	146	7640	20x9.75	20x9.75D
Dodge Bros. G 81	4	5285	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	170	7840	20x9.75	20x9.75D
Dodge Bros. G 82	4	5350	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	195	8040	20x9.75	20x9.75D
Dodge Bros. G 83	4	5415	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	220	8400	20x9.75	20x9.75D
Essex Com.	¾	435	Own	L	6	2¾x4½	163.0	18.2	55@3300	C	Har	Own	Spic	Gem	Mar	Vac	Aut	Own	3	Own	Sp	5.40	4M	147	110½	1970	20x5	20x5.50
Federal D 3	*1½	670	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L4IH	191	130	3225	20x6.00	32x6
Federal E 3	*1½	695	Con	L	6	3⅜x4	215.0	27.3	72@3400	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L4IH	191	130	3225	30x6.00	32x6
Federal F 7	*1¾	1325	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	29.2	L4IH	247	132	3785	30x5	30x5D
Federal F 8	*1¾-2	1425	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	34.0	L4IH	269	132	3865	30x5	30x5D
Federal G 5	2	995	Con	L	6	3⅜x4	215.0	27.0	72@3400	C	Long	Borg	Cle	Gem	Zen	P	DR	Own	4	Tim	Sp	6.80	L4IH	269	132	3800	20x6.50B	20x6.50DB
Federal A 6	*2	1695	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Cla	Sp	38.5	L4IH	270	151	4580	32x6	32x6D
Federal A 6 T	*2½	1995	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	47.1	L4IHV	379	151	5110	32x6	32x6D
Federal A 6 T W	*2½	2130	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	52.9	L4IHV	379	151	5110	32x6	32x6D
Federal T 3 W	*2½	1595	Wau	L	4	4 x5	251.0	25.6	50@2000	G	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Wo	36.3	L4IH	337	148	5110	32x6	36x8
*Federal D 2 S W	*2½-3	1050	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	312	140	3925	20x6.00	32x6
*Federal E 2 S W	*2½-3	1150	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	312	145	3975	20x6.00	32x6
*Federal D 2 D	*2½-3	1350	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	312	140	4235	20x8.00	32x6
Federal T 3 W F A	*2½-3	1795	Wak	L	4	4 x5	251.0	25.6	50@2000	G	Long	Borg	Cle	Ross	Zen	Vac	DR	Own	4	Tim	Wo	43.9	L4IHV	379	148	5400	32x6	32x6D
*Federal E 2 D	*2½-3	1450	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	312	145	4310	20x6.00	32x6
Federal T 10 B	*2½-3	2550	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.5	L4IHV	379	165	6550	34x7	34x7D
Federal T 10 W	*2½-3	2685	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Wo	44.0	L4IHV	379	165	6550	34x7	34x7D
Federal T 10 D R	*2½-3	2685	Con	H	6	4 x4⅛	311.0	38.4

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

(Continued from Page 8)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Transmission Make	No. Spds. For.	Rear Axle Make	Rear Axle Type	Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Standard Tire Sizes Rear
Gramm A X 4	1	795	Con	L	4	3⅞x4¼	200.4	24.0	50@2800	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		36.3	L4IH	380	131	*3300	20x6.00	20x6.50
Gramm A X 6	1	895	Con	L	6	3⅝x4	214.7	27.3	61@3000	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		36.3	L4TH	380	131	3550	20x6.00	20x6.50
Gramm B X 4	1½	895	Con	L	4	3⅞x4¼	200.4	24.0	50@2800	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		36.3	L4IH	380	131	3475	20x6.00	20x6.00D
Gramm B X 6	1½	995	Con	L	6	3⅝x4	214.7	27.3	61@3000	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		36.3	L4IH	380	131	3725	20x6.00	20x6.00D
Gramm B Z	1½	995	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		39.6	L4IH	380	131	3500	6.00x20	32x6S
Gramm B	2	1295	Lyc	L	6	3¼x4½	224.0	25.3	61@2900	G	Per	Own	Blo	Ross	Zen	Vac	Aut	Cov	4	Tim	Sp		34.3	L4IH	278	140	4150	20x6.50	20x6.50D
†Gramm C X 4	2	1095	Con	L	4	4½x4¼	227.0	27.2	55@2600	G	Per	Jon	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		37.0	L4IH	452	131	3900	20x6.50	20x6.50D
Gramm C X 6	2	1295	Con	L	6	3⅝x4⅝	248.2	27.3	70@3000	G	Per	Own	Blo	Ross	Til	P	Aut	W-G	4	Tim	Sp		37.0	L4IH	452	131	4150	20x6.50	20x6.50D
Gramm C	2	1795	Lyc	L	6	3⅝x4½	278.6	31.5	82@2600	G	Per	Own	Blo	Ross	Zen	P	Aut	Cov	4	Tim	Sp		31.0	L4IH	353	160	4800	20x7.00	20x7.00D
Gramm C F	2½	1895	Lyc	L	6	3¾x4½	299.0	33.7	85@2800	G	Per	Br-L	Blo	Ross	Til	P	Aut	Br-L	4	Tim	Sp		38.2	L4IH	353	160	4900	20x7.50	20x7.50D
Gramm D	2½	1995	Lyc	L	6	3¾x4½	299.0	33.7	90@2200	G	Per	Br-L	Blo	Ross	Zen	P	Aut	Br-L	4	Tim	Sp		33.0	L4IHV	339	160	5200	20x7.50	20x7.50D
Gramm E	3	2595	Lyc	L	6	3⅞x5	353.8	36.0	90@2200	G	Per	Br-L	Blo	Ross	Zen	P	Aut	Br-L	4	Tim	Sp		35.0	L4IHV	659	160	5950	20x8.25	20x8.25D
Gramm E Y	3	3595	Con	H	6	4⅛x4¾	380.8	40.8	90@2200	C	Per	Ful	Blo	Ross	Zen	P	Aut	Br-L	4	Tim	Sp		30.0	L4IHA	—	190	7200	20x7.50	20x7.50D
Gramm G	4	3695	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Per	Br-L	Blo	Ross	Zen	P	Aut	Br-L	4	Wis	2R		49.5	L4IHV	768	165	8200	20x9.00	20x9.00D
Gramm G 8	4	3695	Lyc	L	8	3¾x4¾	419.6	44.4	130@2700	G	Per	Br-L	Blo	Ross	Zen	P	Aut	Br-L	4	Wis	2R		—	L4IHV	768	165	8200	20x9.00	20x9.00D
Gramm G Y	4	4345	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Per	Ful	Blo	Ross	Zen	P	Aut	Cov	4	Wis	2R		28.0	BW4IM	736	210	7700	20x8.25	20x8.25D
Gramm G W	5	5175	Con	H	6	4⅜x4¾	428.0	45.9	100@2200	C	Per	Br-L	Blo	Ross	Zen	P	Aut	Br-L	4	Wis	2R		—	41A	864	157	9500	20x9.00	20x9.00D
Gramm GWD	5	6495	Cum-D	H	6	4⅞x6	672.0	57.0	125@1800	G	Per	Br-L	Blo	Ross	——	P	L-N	Bl	4	Wis	2R		25.5	41A	864	157	9800	20x9.00	20x9.00D
Gramm H Y	5	6545	Con	L	6	4⅝x5¾	611.4	54.1	127@2300	G	Per	Ful	Blo	Ross	Zen	P	Aut	Ful	4	Wis	2R		25.2	41A	996	236	10100	20x9.00	20x9.00D
Indiana 85	1½	885	Her	L	6	3⅝x4¼	263.0	31.5	68@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp		35.1	L4IH	249	141	3900	20x6.50	20x6.50D
Indiana 85 DR	1½	1190	Her	L	6	3⅝x4¼	263.0	31.5	68@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	5	Wis	2R		40.1	L4IH	316	141	4200	20x6.50	20x6.50D
Indiana 95	2	1095	Her	L	6	3⅝x4¼	282.0	33.7	73@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp		36.2	L4IH	353	141	4400	32x6	32x6DP
Indiana 95 DR	2½	1275	Her	L	6	3¾x4¼	282.0	33.7	73@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R		41.2	L4IH	353	141	4650	20x7.50	20x7.50DB
Indiana 17	2½	2450	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp		37.8	L4IHV	398	170	7000	20x8.25	20x8.25D
*Indiana 95 SBT 151	3	1675	Her	L	6	3¾x4¼	282.0	33.7	73@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp		45.8	6HV	559	168	6500	32x6	32x6DP
*Indiana 95 SW 75	3	1735	Her	L	6	3¾x4¼	282.0	33.7	73@2800	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Wo		45.8	6HV	459	186	6200	32x6	32x6DP
Indiana 17 DR	3	2675	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R		38.6	L4IHV	398	170	7300	20x8.25	20x8.25D
Indiana 17 W	2½	2675	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Wo		38.1	L4IHV	398	170	7000	20x8.25	20x8.25D
Indiana 19 DR	3½	3400	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R		52.3	L4IHV	489	170	8100	20x9.00	20x9.00D
Indiana 17 SBT 251	4	3250	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp		37 8	L4IHV	625	188	8200	34x7	34x7D
*Indiana 17 SW 251	4	3475	Her	L	6	4⅜x4⅜	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Wo		38.1	L4IHV	625	188	8500	34x7	34x7D
Indiana 43 DR	4	4300	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R		50.7	L4IHV	546	170	8500	20x9.75	20x9.75D
Indiana 45 DR	5	4800	Her	L	6	4⅝x5¼	529.0	51.3	115@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R		45.4	L4IHV	546	170	8700	20x9.75	20x9.75D
International A 1	¾	615	Wak	L	4	3⅝x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp		39.5	B4IM	212	136	*2887	20x5.50	20x5.50
International A 2	1½	615	Wak	L	4	3⅝x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp		39.5	B4IM	212	136	2935	20x6.00	20x6.00
International B 2	1½	665	Wak	L	4	3⅝x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	Mec	6	Own	Sp		47.3	B4IM	212	136	2945	20x6.00	20x6.00
International A L 3	1½	1455	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Own	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp		42 9	B4IM*	295	138	4032	20x6.00	20x6.50D
International A 3	1½	795	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp		33.8	B4IM*	287	136	3572	20x6.00	20x6.00
International A 3½	1½	970	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp		34.9	B4IM*	302	136	3600	20x6.00	20x6.00D
International A 4	2	1750	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	P	DR	Own	5	Own	Sp		47.8	B4IH*	378	145	5232	32x6	32x6D
International W 1	2½	3850	Hall	H	4	4¼x5½	312.0	28.9	59@2000	C	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R		60.5	BO4IM*	710	148	8300	36x8S	36x8S
International A 5	3	2350	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	P	DR	Own	5	Own	Sp		52.8	B4IM*	430	156	5695	34x7	34x7D
International A 6	3	2675	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	P	DR	Own	5	Own	Sp		62 5	B4IM*	430	156	6120	34x7	34x7D
International W 3	3½	4850	Hall	H	4	4¾x5½	390.0	36.1	69@2000	C	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R		70.5	BO4IM*	794	160	10125	36x6S	40x12S
International A 7	5	6200	Own	H	6	4½x5½	525.0	48.6	98@1800	G	Mod	Rock	Mec	Ross	Zen	P	DR	Own	5	Own	2R		52.3	BO4IM-T	730	160	11590	20x9.75	20x9.75D
International A 8	7½	6300	Own	H	6	5 x5½	650.0	60.0	115@1800	G	Mod	Rock	Mec	Ross	Zen	P	DR	Own	5	Own	2R		52.3	BO4IM-T	730	160	11590	20x9.75	20x9.75D
La France Rep. A 1	* 6000	795	Lyc	L	6	3 x4¾	201.5	21.5	60@2500	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp		36.1	L4IH	378	132	3000	20x5.50	32x6
La France Rep. C 2	*10000	995	Lyc	L	6	3¼x4½	224.0	25.3	61@2750	G	Per	Borg	Spic	Rosa	Zen	P	Aut	Ful	4	Tim	Sp		35.9	L4IH	448	150	3800	20x6.00B	20x6.00DB
La France Rep. D 2	*11500	1295	Lyc	L	6	3⅜x4½	242.0	27.3	65@2800	G	Per	Borg	Spic	Ross	Zen	P	Aut	Ful	4	Tim	Sp		37.9	L4IH	448	162	4600	20x6.50	20x6.50D
La France Rep. E 1	*13000	1985	Bud	L	6	3½x4½	260.0	29.5	69@2600	G	Per	Borg	Spic	Ross	Zen	Vac	Aut	Ful	4	Tim	Sp		47.0	L4IHV	578	162	5000	20x7.50	20x7.50D
La France Rep. F 3	*15000	2485	Lyc	L	6	3⅜x4½	299.0	33.7	80@2500	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	Sp		50.6	L4IHV-T	656	174	5625	34x7	34x7D
La France Rep. H 3	*18000	3395	Bud	L	6	4⅛x4¾	393.0	42.1	94@2400	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	2R		54.0	L4IHV-T	768	179	7450	20x9.75B	20x9.75DB
La France Rep. M 3	*22000	4750	Wak	L	6	4⅜x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	5	Tim	2R		62.5	L4IHV-T	768	191	8300	20x10.50B	20x10.50DB
La France Rep. 35-2	*24000	5600	Wak	L	6	4½x5¾	549.0	48.6	98@1850	G	Own	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Wis	2R		46.3	L4IHV-T	870	174	9250	38x9	38x9D
La France Rep. 35-3	*28000	6400	Wak	L	6	4⅝x5½	517.0	51.0	100@1800	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	12	Tim	2R		111.5	W4IA-T	1054	191	10300	24x10.50B	24x10.50DB
La France Rep. Q 4	*30000	10000	Own	H	12	4 x5	754.0	76.7	240@2900	C	Own	Long	Blo	Ross	Zen	P	DR	Br-L	4	Tim	2R		Opt	W4IA-T	1054	Opt	12750	24x10.50B	24x10.50DB
La France Rep. Q 6	*40000	12000	Own	H	12	4 x5	754.0	76.7	240@2900	C	Own	Long	Blo	Ross	Zen	P	DR	Br-L	4	Tim	4R		Opt	W6IA-T	1520	Opt	14900	20x10.50B	20x10.50DB
Mack B G	——	2500	Own	L	6	3½x5	248.9	25.4	41@2600	G	Own	Own	Spic	Gem	Str	P	NE	Own	4	Tim	Sp	Opt		L4IH	302	148	4200	20x6.00B	20x6.00DB
Mack B L	——	3000	Own	L	6	3⅝x5	309.6	31.6	75@2500	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	Sp	Opt		O4IV	427	156	4950	32x6P	32x6DP
Mack B F	——	4200	Own	L	6	3⅝x5	309.6	31.6	75@2500	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	2R	Opt		O4IV	427	156	6600	20x8.25B	20x8.25DB
Mack A B-4	——	4000	Own	L	4	4¼x5	283.7	28.9	63@2100	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt		O4IV	471	146½	6450	34x7P	34x7DP
Mack A B-4	——	4200	Own	L	4	4¼x5	283.7	28.9	63@2100	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2R	Opt		O4IV	471	164½	6850	34x7P	34x7DP
Mack A B-6	——	4150	Own	L	6	3⅝x5	309.6	31.6	75@2500	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	Ch	Opt		O4IV	471	146½	6450	34x7P	34x7DP
Mack A B-6	——	4500	Own	L	6	3⅝x5	309.6	31.6	75@2500	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	2R	Opt		O4IV	471	164½	6850	34x7P	34x7DP
Mack B M	——	4700	Own	L	6	4 x6½	414.7	38.4	94@2400	G	Own	Own	Spic	Han	Str	P	NE	Own	4	Own	2R	Opt		O4IV	427	157	7500	20x9.00B	20x9.00DB
Mack B C	——	5500	Own	L	6	4 x5½	414.7	38.4	94@2400	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	Ch	Opt		O4IV	590	154	8000	36x8P	36x8DP
Mack B C	——	5250	Own	L	6	4 x5½	414.7	38.4	94@2400	G	Own	Own	Spic	Own	Str	P	NE	Own	4	Own	2R	Opt		O4IV	610	154	7850	36x8P	36x8DP
Mack B X	——	5750	Own	L	6	4¼x5½	468.1	43.3	104@2300	G	Own	Own	Spic	Ross	Str	P	NE	Own	4	Own	Ch	Opt		O4IV	619	160	7900	22x9.75B	22x9.75DB
Mack B X	——	5600	Own	L	6	4¼x5½	468.1	43.3	104@2300	G	Own	Own	Spic	Ross	Str	P	NE	Own	4	Own	2R	Opt		O4IV	619	160	8050	22x9.75B	22x9.75DB
Mack B J	——	6450	Own	L	6	4½x5½	525.5	48.6	125@2300	G	Own	Own	Cle	Han	Str	P	NE	Own	4	Own	2R	Opt		O4IV	618	197	9800	22x10.50B	22x10.50DB
Mack B Q	——	6800	Own	L	6	4¾x5¾	610.6	54.1	128@2200	G	Own	Own	Cle	Ross	Str	P	NE	Own	4	Own	2R	Opt		O4IV	618	191	10000	22x10.50B	22x10.50DB
Mack A K-4	——	5150	Own	L	4	5 x6	471.2	40.0	75@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt		O4IV	492	174	9500	36x8S	36x8DS
Mack A K-4	——	5250	Own	L	4	5 x6	471.2	40.0	75@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2R	Opt		O4IV	492	174	9400	36x8S	36x8DS
Mack A K-6	——	6450	Own	L	6	4¾x5¾	610.6	54.1	128@2200	G	Own	Own	Spic	Han	Str	P	NE	Own	4	Own	2R	Opt		O4IV	561	186	10400	22x10.50B	20x10.50DB
Mack A C-4-L	——	4950	Own	L	4	5 x6	471.2	40.0	75@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt		OJXM	478	156	9100	36x8S	40x8DS
Mack A C-4-M	——	5500	Own	L	4	5 x6	471.2	40.0	75@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt		OJXM	478	168	9800	36x6S	40x6DS
Mack A C-4-H	——	6000	Own	L	4	5 x6	471.2	40.0	75@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt		OJXM	478	168	10150	36x7S	40x7DS
Mack A C-6	——	6450	Own	L	6	4¾x5¾	610.6	54.1	128@2200	G	Own	Own	Spic	Han	Str	P	NE	Own	4	Own	Ch	Opt		O4IV	755	186	11400	24x10.50B	24x10.50DB
Mack A P	——	8500	Own	L	6	5 x6	706.5	60.0	138@1900	G	Own	Own	Spic	Han	Str	Gra	NE	Own	4	Own	Ch	Opt		O2IV	284	191	11700	36x7S	40x8DS
Mack A K-6 6 wheel	——	9000	Own	L	6	4¾x5¾	610.6	54.1	128@2200	G	Own	Own	Cle	Han	Str	P	NE	Own	4	Own	2R	Opt		O6IV	1044	152-52	15600	22x9.75B	22x9.75DB
Mack A C-6 6 wheel	——	8500	Own	L	6	4¾x5¾	610.6	54.1	128@2200	G	Own	Own	Spic	Han	Str	P	NE	Own	4	Own	Ch	Opt		O6IV	1052	145-52	14300	40x8P	40x8DP
Mack A P 6 wheel	——	10500	Own	L	6	5 x6	706.5	60.0	138@1900	G	Own	Own	Spic	Han	Str	Gra	NE	Own	4	Own	Ch	Opt		O6IV	1052	145-52	14600	40x8P	40x8DP
Mack A P 6 wheel	——	11000	Own	L	6	5 x6	706.5	60.0	138@1900	G	Own	Own	Cle	Han	Str	Gra	NE	Own	4	Own	2R	Opt		O6IV	1044	152-52	15950	22x9.75B	22x9.75DB
Pierce-Arrow 138 385	2	2500	Own	L	8	3½x5	385.0	39.2	125@2800	C	Long	Long	Cle	Han	Str	P	DR	Cla	4	Tim	Sp		33.5	B4IM-T	399	160	6000	20x8.25B	20x8.25DB
Pierce-Arrow	——	——	Her	L	6	4½x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp		34.3	B4IM	399	150	5625	20x7.50B	20x9.00B
Pierce-Arrow 15T 298	2½	1950	Her	L	6	3⅞x4½	298.0	33.7	70@2600	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp		40 0	B4IM	399	150	5725	20x8.25B	20x8.25DB
Pierce-Arrow 17T 361	3	2350	Her	L	6	4½x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Sp		34.4	B4IM	399	180	5800	20x8.25B	20x9.00DB
Pierce-Arrow 18W 361	3-4	3000	Her	L	6	4½x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		41.9	B4IA-I	473	150	6660	20x9.00B	20x9.00DB
Pierce-Arrow 19R 428	3-4	3600	Her	L	6	4⅜x4¾	428.0	46.0	94@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		28.6	B4IA	473	150	6860	20x9.00B	20x9.00DB
Pierce-Arrow 22R 501	3½	3750	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		36.0	B4IA	473	150	7050	20x9.75B	20x9.75DB
Pierce-Arrow 24X 501	4-5	4200	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		40 2	B4IA	618	160	9250	20x10.50B	20x10.50DB
Pierce-Arrow 24M 611	4-5	5000	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Tim	Wo		39 9	T4IA-T	618	160	10200	20x10.50B	20x10.50DB
Pierce-Arrow 28X 501	5½	4600	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	Wo		51 0	TO4IA	720	160	10675	24x10.50B	24x10 50DB
Pierce-Arrow 28M 611	5½	5400	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo		52.5	TO4IA	720	160	11600	24x10.50B	24x10.50DB
Pierce-Arrow 28Y 479	5½	4400	Her	L	6	4⅝x4¾	479.0	51.3	104@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	Wo		53.0	TO4IA	720	160	10675	24x10.50B	24x10.50DB
Pierce-Arrow 34K 611	5½	5300	Her	L	6	4½x4½	361.0	40.3	77@2400	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo		42.0	TO4IA	720	170	11675	24x10.50B	40x8DS
Pierce-Arrow 75M 779T	*75000	6400	Her	L	6	5¼x6	779.0	66.1	150@1800	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo		51.9	TO4IA	720	190	12750	24x10.50B	24x10.50DB
Pierce-Arrow 27T 361T	*27000	2450	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Sp		48.1	B4IM	399	150	5725	20x8.25	20x8.25D
Pierce-Arrow 35R 501T	*35000	3800	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		47 8	B4IA	473	150	7050	20x9.75	20x9.75D
Pierce-Arrow 45X 501T	*45000	4800	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		57.2	T4IA	618	160	9300	20x10.50	20x10.50D
†Pierce-Arrow 84L 501S4	*34000	6400	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo		49.0	T6IA	1022	200	13200	20x9.75	20x9.75D
†Pierce-Arrow 44K 779S4	*44000	7500	Her	L	6	5¼x6	779.0	66.1	150@1800	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Tim	Wo		47.2	T6IA	1022	200	14500	20x10.50	20x10.50D
†Pierce-Arrow 84K 611S4	*34000	7200	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Tim	Wo		40 6	T6IA	1022	200	14200	20x9.75	20x9.75D
Reo 1 A	1½	625	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Zen	P	DR	Own	4	Cla	Sp		37.1	L4IH	246	136	2930	20x6.00	32x6
Reo 1 C	1½	665	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Zen	P	DR	Own	4	Cla	Sp		37.1	L4IH	246	160	3020	20x6.00	32x6
Reo 1 B	1½	795	Own	L	6	3¼x5	230.0	23.4	68@2800	C	Own	Own	Cle	Ross	Zer	P	DR	Own	4	Own	Sp		34.8	L4IH	249	141	3100	20x6.00B	32x6
Reo 1 D	1½	835	Own	L	6	3¼x5	230.0	23.4	68@2800	C	Own	Own	Cle	Ross	Zen	P	DR	Own	4	Own	Sp		37.1	L4IH	230	164	3200	20x6.00	32x6
Reo 2B-2D	2	1095	Own	L	6	3⅜x5	268.0	27.3	75@2800	C	Own	Long	Cle	Ross	Zen	P	DR	Own	4	Own	Sp		5.83	4IH	289	142	3865	20x6.50	20x6.50D
Reo 2 H	2	1625	Own	L	6	3⅜x5	268.0	27.3	75@2800	C	—	—	Cle	Ross	—	P	DR	Own	4	Own	—	—		LIH	289	142	—	20x7.00	20x7.00D
Reo 2 J	2	1695	Own	L	6	3⅜x5	268.0	27.3	75@2800	C	—	—	Cle	Ross	—	P	DR	Own	4	Own	—	—		LJH	289	166	—	20x7.00	20x7.00D
Reo 3 H	3	2035	Own	L	6	3⅝x5	309.6	31.5	85@2800	C	—	—	Cle	Ross	—	P	DR

Production -- Engineering -- Factory

EMERGENCY RADIOS

From the laboratories of the RCA Victor Company at Camden, N. J., comes word of the development of a tiny two-way radio telephone and telegraph receiver and transmitter, in one unit, for emergency and mobile communications over short distances.

Weighing only twenty-two pounds together with a battery unit and taking up scarcely as much room together as two moderate sized "B" batteries, these remarkable little units, which have been named Transceivers, are expected to find an immediate application whereever other means of communications are impracticable or uncertain.

The operation of the Transceivers is simple. The changeovers from "transmit," "receive" and "telegraph" positions are accomplished with a single changover key switch. The circuit of the Transceivers is of the super regenerative type which has been found to be most efficient below 10 meters. The tubes, which include three RCA-230s and an RCA-231, have interchangeable functions in the circuit. In the transmit position, two RCA-230s act as oscillators in a push-pull circuit with an RCA-231 as modulator and an RCA-230 as audio amplifier. In the receive position, the two 230 tubes act as oscillating super regenerative detectors and the other 230 acts as the first audio amplifier, with the 231 as an output amplifier. For code transmission, the 230 speech amplifier oscillates at an audio frequency of approximately 1,000 cycles which is keyed with a telegraph key.

The antenna is usually of the dipole type, each section being approximately one-fourth wave length long, which for five meter transmission is about forty inches. For plane, auto and other mobile use, it may be desirable to utilize a Zeppelin antenna with a transmission line. The units have a range up to three miles, depending on the nature of the surrounding terrain, although it is possible to increase this range by raising the transmitter to a greater height above the ground.

The extremely low wave length and low power of the transmitter insure against any interference with existing radio services, all of which, with the exception of experimental television broadcasting, operate at higher wave lengths and much greater power.

RAPID REVERSING MOTORS

The Louis Allis Company, Milwaukee, Wis., is offering squirrel cage motors claimed to be capable of reversing sixty times per minute continuously without overheating.

The manufacturers state that the high rate of reversal has been made possible by the light weight rotor construction, efficient ventilation, high torque characteristics and shock resisting cast iron frames.

These motors are recommended for use that utilize fast reciprocating or reversing motions or require frequent starting and stopping. The motors can be furnished in the standard open ball bearing type, rolled shell shaftless type and in vertical, single speed, multi-speed, enclosed fan cooled and other squirrel cage types. No auxiliary ventilation is needed in sizes up to five horspower.

POWER REDUCTION UNIT

The Merkle-Korff Gear Company, Chicago, is introducing a compact power reduction unit, which may be had in any speed from 3,000 r. p. m. down and for clockwise or counter-clockwise revolution.

This unit is so built that it can be attached to any device or mechanism. Either horizontal or right-angle drives are provided. The right-angle drive may be had in any position within the 360-degree circle. An induction or synchronous motor is used with the unit.

Overall dimensions of this reduction unit are as follows: Horizontal drive, height, 3⅛ inches; width, 3⅝ inches; depth, 2⅞ inches. Right-angle drive, height, 3⅛ inches; width, 3⅜ inches; depth, 3⅛ inches.

VALVE GRINDING BUSHING

The K-D Manufacturing Company of Lancaster, Pa., producer of parallel jaw valve spring lifters and compressors, has brought out a valve-grinding bushing, carried under the K-D catalogue No. 1118. This is a one-piece tool, with jumper spring securely attached. No loose parts to assemble. You simply open the tool, invert valve and it is ready for use. Made of die casting, machined to insure a perfect fit. A tool of similar design for A and B Ford models carries the catalogue No. 511.

SAFETY CLINIC BOOK

The Bendix-Cowdry Brake Tester, Inc., has just published a booklet describing in detail the National Safety Clinic, which was recently launched at South Bend, Ind.

The clinic was given a start at a three-day convention at South Bend. More than 125 service station operators and Bendix distributors from all over the country attended the clinic, which is pledged to reduce motor accidents by frequent inspection and servicing of the safety units of the nation's cars.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

(Continued from Page 9)

Make and Model		Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H.P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
White 162		*10000	1900	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	Own	Own	Mec	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	138	4260	20x7.00B	20x7.00B
White 214 L		*10500	2300	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	133	5170	20x7.00B	20x7.00DB
White 611 L		*10500	2450	Own	L	6	3¾x4½	299.0	33.7	70@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	131	4960	20x7.00B	20x7.00DB
White 611		*11500	2450	Own	L	6	3¾x4½	299.0	33.7	66@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	4960	20x7.00B	20x7.00DB
White 211		*11500	2300	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5110	20x7.00B	20x7.00DB
White 212 L		*12000	2650	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	19.5	L4IH	276	133	5500	20x7.50B	20x7.50DB
White 612 L		*12000	2800	Own	L	6	3¾x4½	299.0	33.7	70@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IHV	349	131	5295	20x7.50B	20x7.50DB
White 212		*13000	2650	Own	L	4	4 x5¾	289.0	25.6	45@1800	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5230	20x7.50B	20x7.50DB
White 612		*13000	2800	Own	L	6	3¾x4½	299.0	33.7	66@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IH	349	148	5395	20x7.50B	20x7.50DB
White 611 A		*14000	2450	Own	L	6	3¾x4½	299.0	33.7	77@2400	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	26.4	LAIH	349	148	4960	20x9.00B	20x7.00DB
White 612 A		*14000	2800	Own	L	6	3¾x4½	299.0	33.7	70@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IHV	349	148	5295	34x7.00P	34x7.00DP
White 620		*15000	4350	Own	H	6	4 x5¼	396.0	38.4	92@2100	G	Own	Own	Spic	Han	Zen	Vac	DR	Own	4	Own	Sp	23.4	L4IHV	349	148	5295	34x7.00P	34x7.00DP
White 618 L		*16000	3600	Own	L	6	3¾x4½	299.0	33.7	77@2400	G	Own	Own	Spic	Ross	Zen	P	DR	Own	5	Own	2R	57.2	L4IHV	349	152	6775	34x7.00P	34x7.00DP
White 51 A		*17000	3750	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Own	Zen	Vac	Eis	Own	4	Own	Sp	35.6	O2IM	335	170	6438	36x5.00P	36x8.00S
White 630 L		*17000	5000	Own	H	6	4 x5¼	396.0	38.4	92@2100	G	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	37.3	L4IHV	553	157	8500	20x9.00B	20x9.00DB
White 618-618A		*18000	3600	Own	L	6	3¾x4½	299.0	33.7	77@2400	G	Own	Own	Spic	Ross	Zen	Vac	DR	Own	5	Own	2R	57.2	L4IHV	349	166	6775	20x9.00B	20x9.00DB
White 631		*18000	4650	Own	H	6	4 x5¼	396.0	38.4	92@2100	G	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	OL4IHV	484	157	7945	20x9.00B	20x9.00DB
White 640		*20000	6100	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	Sp	33.9	O4IA	553	180	9200	20x9.00B	20x9.00DB
White 630		*20000	5000	Own	H	6	4 x5¼	396.0	38.4	92@2100	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	O4IHV	553	168	8500	20x9.00B	20x9.00DB
White 58		*32000	4400	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Ross	Zen	Vac	Eis	Own	4	Own	2R	49.7	OPXM	224	180	7797	36x5	36x58D
White 630 A		*22000	5000	Own	H	6	4 x5¼	396.0	38.4	92@2100	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	O4IHV	553	168	6500	20x9.00B	20x9.00DB
White 641		*24000	6450	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	46.9	O4IA	595	180	9700	20x9.75B	20x9.75DB
*White 630	SW200	*24000	6245	Own	H	6	4 x5¼	396.0	38.4	92@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	33.9	O4IA	595	180	10000	20x8.25B	20x8.25DB
White 631		*24000	5750	Own	H	6	4 x5¼	396.0	38.4	92@2100	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Tim	Wo	44.2	OTIHV	514	193	10000	20x9.25B	20x9.25DB
*White 642	SW310	*34000	8025	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	2R	55.9	O4IHV	595	168	9000	20x9.25B	20x9.25DB
White 58 SS		*30000	5300	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Ross	Zen	Vac	L-N	Own	4	Tim	Wo	55.6	OTIA	588	193	12670	20x9.00B	20x9.00DB
White 643		*32000	8950	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	77.6	OPXM	224	196	9309	24x10.50B	24x10.50DB
White 642		*28000	6750	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66.5	O4IA	623	180	10900	24x10.50B	24x10.50DB
*White 643	SW410	*40000	8550	Own	H	6	4⅜x5¾	519.0	45.9	118@2100	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66.5	O4IA	623	180	10600	24x9.75B	24x9.75DB
White 601		*32000	7250	Own	H	6	4⅝x5¾	580.0	51.3	127@2650	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Tim	Wo	69.1	OTIA	588	193	14400	40x8	40x8D
Willys-Overland	6-C-113	½	415	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	DR	Own	5	Own	2R	46.9	O4IA	623	129½	12200	24x10.50B	24x10.50DB
Willys-Overland	6-C-131	1½	595	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	Own	3	Own	Sp	12.4	B4IM	143	113	1920	19x6.00	19x6.00
Willys-Overland	6-C-157	1½	635	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	W-G	4	Cla	Sp	40.8	B4IM	235	131	2750	20x5.50	32x6
																		Aut	W-G	4	Cla	Sp	40.8	B4IM	235	157	2900	20x5.50	32x6

GENERAL NOTATIONS

***†REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

ENGINE—Bud, Buda; Con, Continental; Cum-D, Cummings-Diesel; Her, Hercules; Lyc, Lycoming; Pont, Pontiac; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry; Ster, Sterling Engine Co

VALVE ARRANGEMENT—L, "L" head; H, in head, O, overhead; S, sleeve.

TYPE OF CAMSHAFT DRIVE—G, gear; C, chain.

RADIATOR MAKE—G&O, G. & O. Mfg. Co.; Per, Perfex Corp; Long, Long Mfg. Co.; Har, Harrison Radiator Corp; Fed, Fedders Mfg. Co.; McC, McCord Radiator & Mfg. Co.; Mod, Modine Mfg. Co.; Hex, Hexcel Radiator Co. Yo, Young.

CLUTCH MAKE—Jon, Jones Clutch & Gear Co.; Ful, Fuller & Sons Mfg. Co.; Borg, Borg & Beck Co.; Br-L, Brown Lipe Gear Co; Rock, Rockford Drill & Machine Co.; Cov, Covert Gear Co.; Long, Long Mfg. Co.; Detr, Detroit Gear & Machine Co.; Mer, Merchant & Evans; Hel, Merchant & Evans.

UNIVERSALS MAKE—Spic, Spicer Mfg. Co.; Blo, Blood Bros. Machine Co.; Sup, Superior Universal Products; Un, Universal Products Co.; Cle, Cleveland Steel Products Corp.; Pet, Peters; Opt, optional; Mec, Mechanics Machine Co.

STEERING GEAR MAKE—Ross, Ross Gear & Tool Co.; Han, Hannum Mfg. Co. Sag, Saginaw Steering Gear Co.; Gem, Gemmer Mfg. Co.; Col, Columbus Gear & Pump Co. W-G, Warner Gear Corp.

CARBURETOR—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DL, Detroit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, gravity; Vac, vacuum tank; P, fuel pump.

ELECTRICAL SYSTEM — AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Leece-Neville; NE, North East; RB Robert Bosch; DR, Delco-Remy.

TRANSMISSION—Br-L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cot, Cotta Gear Co.; Cla, Clark Equipment Co.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Est, Eaton; Pont, Pontiac; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE—IG, internal gear; St, straight bevel; Sp, spiral bevel; Wo, worm; 2R, double reduction; Ch, chain; S-T, semi-transverse.

TYPE OF SERVICE BRAKES—

B4IM, Bendix, 4 wheel internal mechanical; B4MV, Bendix, 4 wheel, mechanical, vacuum; B6IA, Bendix, 6 wheel, internal, air; B4IMV, Bendix, 4 wheel internal mechanical, vacuum; BO4IMV, Bendix, own, 4 wheel, internal, mechanical, vacuum; BrIA, Bendix, operating on 4 rear wheels, internal air; BW4IM, Bendix front, Wisconsin rear, 4 wheel, internal, mechanical; BE4IM, Bendix front, Eaton rear, 4 wheel, internal, mechanical; B4IH, Bendix 4 wheel, internal, hydraulic.

CB4IM, Columbia, Bendix, 4 wheel, internal, mechanical; C4IM, Columbia, 4 wheel, internal, mechanical; K2IM, Clark, 2 wheel, internal, mechanical; CR4IA, Christensen-Relay, 4 wheel internal, air.

L4IHVA, Lockheed, 4 wheel, internal, hydraulic, vacuum, air; LO4ID, Lockheed, own, 4 wheel, internal, drive shaft; LO4IV, Lockheed, own, 4 wheel, internal, vacuum, LT4DV, Lockheed, Timken, 4 wheel, drive shaft, vacuum; L4IH, Lockheed 4 wheel, internal, hydraulic; L4IHA, Lockheed 4 wheel, internal, hydraulic, air; L4IHV, Lockheed, 4 wheel, internal, hydraulic, vacuum; LT4IHV, Lockheed, Timken, 4 wheel, internal, hydraulic, vacuum; LT4IVA, Lockheed, Timken, 4 wheel, internal, vacuum, air; L6IHV, Lockheed, 6 Wheel, internal, hydraulic, vacuum; L6IH, Lockheed, 6 wheel, internal, hydraulic.

O2IM, Own, 2 wheel, internal, mechanical; O2IV, Own, 2 wheel, internal, vacuum; O4IA, Own, 4 wheel, internal, air; O4IH, Own, 4 wheel, internal, hydraulic; O4IHV, Own, 4 wheel internal, hydraulic, vacuum; O4IM, Own, 4 wheel, internal, mechanical; O4IV, Own, 4 wheel, internal, vacuum; O4M, Own, 4 wheel, mechanical; O2XM, Own, 2 wheel, external, mechanical; O4XM, Own, 4 wheel, external, mechanical; O6IA, Own, 6 wheel, internal, air; OJXM, Own, jack shaft, external, mechanical; OL4IHV, Own, Lockheed, 4 wheel, internal, hydraulic, vacuum; OPX, Own, propeller shaft, external; OPXM, Own, propeller shaft, external, mechanical; OPM, Own, propeller shaft, mechanical; ORIV, Own, rear wheels, internal, vacuum; OTIHV, Own Timken, internal, hydraulic, vacuum

S4IM, Steeldraulic, 4 wheel, internal, mechanical.

T4rIA, Timken, operating on 4 rear wheels, internal, air; T4IA, Timken, 4 wheel, internal, air; T6IA, Timken, 6 wheel, internal, air; T2IMV, Timken, 2 wheel, internal, mechanical, vacuum.

W4I, Westinghouse, 4 wheel, internal; W4IA, Westinghouse, 4 wheel, internal, air; 46IA, Westinghouse, 6 wheel, internal, air; 4IA, 4 wheel, internal, air; 4IH, 4 wheel, internal, hydraulic; 4M, 4 wheel, mechanical.

-T, True-stop. *Models on which Tru-stop is optional.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

***CHASSIS WEIGHT** according to Automotive Daily News formula, which is the chassis with gas, oil, water and spare tire, but without cab or other equipment.

TIRES—B, balloon; D, dual, S, solid; P, pneumatic.

SPECIAL NOTATIONS

AUTOCAR

*For tractor use only.
**Six wheeler driving from 4 rear wheels.
***Engines in these models are located under driver's seat.

BROCKWAY

*Models equipped with twin ignition.

CHEVROLET

Utility model available on 131-inch wheel base with chassis weight of 2,700 pounds and equipped with dual rear wheels.

DIAMOND T

*Six-wheelers.
Additional standard wheel base available as follows:

510	158	750	167, 192
504A	166½	801	180½, 199¼
506A	174	1201	174½, 180
603	157, 179	1602	174½, 180
606B	177½	1603	184

DODGE

*Models F40, F41, F61 and F62 can be had with double drop frame.
†Six wheelers.

FEDERAL

†Six-wheelers.
*Also rated in pounds at total allowable weight as follows:

D 3	8,500	A 600 S W	20,000
E 3	8,500	A 600 D	20,000
F 7	10,000	U S	21,000
F 8	11,500	U 6 D R	21,000
A 6	13,500	A 6 S W	18,500
A 6 T	15,000	C 7	24,000
A 6 T W	15,000	C 7 W	24,000
T 3 W	14,000	C 8	24,000
T 8 W F	15,000	C 8 W	24,000
D 2 S W	12,500	X 8	30,000
E 2 S W	12,500	X 8 D R	30,000
D 2 D	12,500	X 8 R	30,000
2 E D	12,500	X 8 R D R	30,000
A 600	15,000	A 600	15,000
A 600 T	17,000	A 600 T	17,000
A 600 T W	17,000	A 600 T W	17,000
A 600 T D R	17,000	A 60 T D R	17,000
T 10 B	18,000	A 600 S W	20,000
T 10 W	18,000	A 600 D	20,000
T 10 D R	18,000	T 3 W F A	16,000

†Both the four and six cylinder are also offered in 157-inch wheel base at $1,145 and $1,345, respectively.

Model T 10 SW also available in 206 and 224 inch wheel bases.

GENERAL MOTORS TRUCK

*Capacity indicated is the Straight Rating (combined weight of chassis body, equipment and pay load) for which each chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this Straight Rating, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment based on tire capacity. Prices cover base chassis and vary with wheel base and tire combinations. The number of wheel base lengths, tire types, range of "recommended gross weights" and resulting pay load range (assuming nominal body allowance) for each model follow:—

Note: Models T-15 to T-51, inclusive, are available for export only as coach chassis.

Model	Wheel Bases	Tire Types	Range of "Rec. Gross Weights"	Pay Load Range
T-15	3	10	4500- 6500	½-1½
T-18	2	..	7500- 8200	1½-2
T-19	4	..	7500-10000	1½-2½
T-23	2	..	8500-10000	2-3
T-25	3	17	6800- 9000	1½-2
T-26	4	..	8500-11000	2-3
T-30	3	15	10000-12500	2-3
T-31	4	..	11000-14000	2½-4
T-42	4	12	12000-15000	2½-4
T-44	4	12	12000-16000	3-4½
T-45	4	..	13500-16000	3-4½
T-51	4	..	16500-19000	4-5½
T-60	4	18	18500-22000	5-6½
T-61	4	..	19500-22000	5-6½
T-82	4	12	19000-24000	5-7
T-83	4	..	20000-25000	5-7½
T-85	3	..	25000-30000	6-8
T-90	3	..	22000-28000	5-7½
T-95	3	..	30000-40000	7-11

Optional rear axle gear ratios available for all models, except Model T-18. Double reduction axles available for Models T-45, T-51, T-60, T-61, T-82, T-83 and T-95.

GRAMM

Series	Straight Rating	Wheel Base		Pay Load Range
AX 4	8,000	157	1	to 1½ tons
AX 6	8,000	157	1	to 1½ tons
BX 4	10 000	157	1½	to 2 tons
BX 6	10,000	157	1½	to 2 tons
CX 4	12,000	157-180	2	to 3 tons
CX 6	12,000	157-180	2	to 3 tons
B	12,000	157-174	1¾	to 2½ tons
C	14,000	145-196	2	to 3 tons
D	17,000	145-196	2½	to 4 tons
E	20,000	145-224	3	to 4½ tons
EY	.....	.....	3	to 4 tons
G	24,000	165-235	4	to 6 tons
G 8	24,000	165-235	4	to 6 tons
GY	.....	.....	4	to 5 tons
GW	28,000	157-240	5	to 7½ tons
GWD	30,000	157-240	5	to 7½ tons
HY	.....	.....	5	to 6½ tons

†Both the four and six-cylinder are also offered in 157-inch wheel base at $1,145 and $1,345, respectively.

INDIANA

*Six-wheelers.

INTERNATIONAL

Brake H. P. values given for International motor trucks are net values obtained with all standard equipment accessories running.

PIERCE-ARROW

*Optional final drive on models except "S" and "T" series.
†Six-wheelers.

REO

Model 2 D can be secured in 148-inch wheel base at $1,095.

STEWART

Model 30X can also be supplied in 130, 140 and 160-inch wheel base.

Models 40XA can also be supplied in 134, 145, 160 and 176-inch wheel base.

Model 29XS can be supplied in 135, 160, 176 and 190-inch wheel base.

*Models 18X and 32X can be supplied in 148, 190 and 220-inch wheel base.
*Models 19X, 31X and 27XS can be supplied in 148, 172, 190, 220 and 235-inch wheel base.

As optional equipment Models 18X, 19X, 31X and 27XS can be supplied with Timken dual reduction rear axle.

Models 38-8, 38-6, 48-8 and 58-8 can be supplied in 160, 170, 180, 196, 226 and 241-inch wheel base and worm axle.

WHITE

Six-wheelers.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

On the Other Hand

REPORTS BRISK UPTURN

Detroit, Sept. 29.—A brisk upturn in the sales divisions of Bohn Aluminum & Brass Corp. catering to other than the automotive trade has developed in recent weeks. This is particularly true of the plumbing supplies division. Improvement in this department has been under way throughout the entire current quarter, with September showing a gain of 40 per cent. over the preceding month. Although the orders are not large, they are coming in increasing number from all sections, most of them requesting rush shipment. According to the management this indicates not only an exhaustion of inventories in the field, but also an upturn in retail demand.

Bohn probably will do better than break even in the current quarter notwithstanding the slump in sales resulting from inactivity of its principal customer, the motor industry. September brought improvement in operations, and the company is gradually increasing its working forces.

STEPS UP PRODUCTION

Fall River, Mass., Sept. 29.—The American Printing Company has booked a large volume of orders during the past month and has materially expanded its operations. At present it is operating forty-two printing machines eleven hours per day, five days per week, and is running twenty-two machines nights.

Current rate of printed goods, or percales, is about 4,000,000 yards a week. In July the company turned out some 9,000,000 yards and in August about 14,500,000 yards. September output will be within striking distance of 17,500,000 yards, or nearly double the rate of two months before. Currently the plant is printing about a mile of goods every other minute.

INCREASES OPERATIONS

Rome, Ga., Sept. 29.—John M. Berry, president of the Rome Hosiery Mills, operating a plant in the city, one in West Rome and a third mill, the Cherokee Hosiery Mills Company, located in East Rome, announces that the two former plants were put on an overtime schedule this week in order to meet the heavy demand for popular priced hosiery, and the third plant was put on full time.

Mr. Berry said that the overtime schedule will be continued for an indefinite period, and that the Berryton Mills, located at Berryton, Ga., of which Mr. Berry is president, will also run on an overtime schedule to supply the yarn necessary for the extended production program.

WOOL INDUSTRY GAINS

Washington, Sept. 29.—Further increased activity in the woolen industry in August today was reported by the census bureau. Figures were based on returns from 752 manufacturers operating 900 mills.

The bureau's inquiry showed 19,735 wide looms in operation in the reporting mills, or 44.2 per cent. of those in place, against 16,449, or 36.7 per cent., in July; 2,213 narrow looms, or 22.3 per cent., against 1,661, or 16.8 per cent.; 2,709 carpet and rug looms, or 28.8 per cent., against 2,855, or 30.4 per cent.; 3,091 sets of cards, or 53.2 per cent., against 2,566, or 44 per cent.; 1,499 combs, or 61.1 per cent., against 1,325, or 53.9 per cent.; 1,041,153 woolen spinning spindles, or 54 per cent., against 830,327, or 42.8 per cent., and 1,194,098 worsted spinning spindles, or 53.7 per cent., against 1,049,161, or 47.2 per cent.

BOSTON EDISON GAINS

Boston, Sept. 29. — Edison Company of Boston for six months to June 30, reported to the state, in connection with hearings on rates, that electric operating revenues for the period were $15,922,407 and net operating revenues (before taxes) $9,556,732. These figures compare with $15,746,891 electric operating revenues for the six months to June 30, 1931, and $9,460,342 net operating revenues (before taxes). The 1932 increases are 1.1 per cent. and 1 per cent., respectively.

That the Edison showing during the half was relatively better than that of the industry as a whole is apparent from the fact that electric output of country for the first half decreased 9.6 per cent. from 1931.

R. R. TO REHIRE 5,800

New York, Sept. 29.—Improvement in business has led the New York Central to prepare a tentative program of increased operations in its car and locomotive shops commencing October 1. The program calls for the employment of about 4,000 men and its continuance will depend upon the course of business.

Locomotive shops at Bucyrus, O.; Jackson, Mich.; St. Thomas, Ont., and passenger car shops at West Albany, N. Y., and Beech Grove, Ind., will be opened for the first time since July. Operations will be continued on a greater scale in locomotive shops at West Albany, N. Y.; Colinwood, O.; Beech Grove, Ind., and St. Thomas, Ont., and in passenger car shops at West Albany, Beech Grove and Cleveland.

Smaller groups of men will be put to work on light car repairs at scattered points, on the system, among them Toledo, Ashtabula, Buffalo and Avis.

Experience is continually pointing out the low operating expense of Wisconsin Axles.

WISCONSIN AXLES

WISCONSIN AXLE CO.

OSHKOSH WISCONSIN

BROCKWAY TRUCKS

"Deliver The Goods" Today for the most discriminating truck users in the country.

Twenty-three years' experience in the production of high-grade motor trucks is built into every Brockway chassis.

Brockway offers unequaled value for your truck dollar—value that will prove itself by years of dependable service.

Brockway Motor Company, Inc.

Main Office and Factory

Cortland - - New York

Cumulative New Commercial Car Registration Statistics, August, 1932

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Metropolitan district figures compiled by Sherlock & Arnold are included in New York state total. Readers desiring county, city or town lists, or lists of owner sin any given section, may obtain these by addressing any of these three companies. Some of this data has been published previously, but it is given here complete for the convenience of our subscribers. Commercial car figures do not include buses.

In this table, 46 states and the District of Columbia

Returns for today: Alabama, Arizona, Colorado, Georgia, Kentucky, Maine, Massachusetts, Nebraska, Nevada, New York, Oklahoma, Oregon, Tennessee, Texas and Vermont

States	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama			83		5		52	3	1	10		3		2			2			3	164	Alabama
Arizona			18		1		25	1		4							1				50	Arizona
Arkansas			58		2		50	2		8							2			1	123	Arkansas
California	4		277	1	32	2	534	22	4	28	1	1		14	3	1	26	8	5	21	984	California
Colorado			56		4		60	5		12				3			2		1	1	144	Colorado
Connecticut	1	4	76	1	13	3	65	9	1	21		4		8		1	1			2	210	Connecticut
Delaware			17				15	1	2	3				2							40	Delaware
Florida			62		2		85	6		5										8	168	Florida
Georgia			60		5	1	87	4		7				2			1			7	174	Georgia
Idaho			25		2		41		1	9				1			2			1	82	Idaho
Illinois	1		173	16	27	1	186	21	2	61		3		2			12	3	3	10	521	Illinois
Indiana			123	3	52	4	178	22	35	68		1		9		1	49	2	7	8	562	Indiana
Iowa			128	6	9	1	115	9	1	31		1	1	7			3	1	4	2	319	Iowa
Kansas			81	6	2		105	9		20		2		2			4		1	5	237	Kansas
Kentucky			85	1	6	12	141	2	1	23				1			4		1	2	279	Kentucky
Louisiana			68	2	1		58	4		9				2				1		2	147	Louisiana
Maine	1		37	1	5		36	1		7		3								1	92	Maine
Maryland	4	5	65	4	20	1	88	4	1	25				8		1	2	1	1	3	233	Maryland
Mass.	14	5	129	5	22	2	266	35	2	45	2	6		15	1		5	13	1	5	573	Mass.
Michigan			151	2	20	5	253	15	1	30			2	5			18		4	6	512	Michigan
Minnesota			161	8	16	4	215	5	2	48		1		10			10	2		3	485	Minnesota
Missouri			249	9	25	5	261	28	1	53				10		1	6			8	656	Missouri
Montana			50		5		39	2		31		1						2	1	5	136	Montana
Nebraska			42	2	4		71	5	2	23				2			1				152	Nebraska
Nevada			6				10			1											17	Nevada
New Hamp.			19	1	1		36	3		1						2	1		2		66	New Hamp.
New Jersey	4	4	223	4	29	6	224	29	13	62		2		19		6	10	1	1	18	655	New Jersey
N. Mexico			28				30	2		1				1			2			1	65	N. Mexico
New York	10	24	394	30	104	8	595	126	15	117		20	5	18	5	23	13	20	2	26	1555	New York
No. Carolina			113	1	13	1	151	4	1	6		1	1					3		9	304	No. Carolina
North Dakota			32	1	6		41	3		24							1		2		110	No. Dakota
Ohio	3		209	9	46	3	368	16	11	62		5	3	8		1	8	12	3	30	797	Ohio
Oklahoma			76		11		63	7		13							1				171	Oklahoma
Oregon			47		2	2	63	3		6				5			1	1		7	137	Oregon
Pennsylvania	6	7	415	8	95	3	572	25	9	107	3	18	1	30	3	22	18	5	12	19	1378	Pennsylvania
Rhode Island			19	1	1	2	23	4		6				4		1		1			62	Rhode Island
So. Carolina			33		1		36	1		3							2		1	2	79	So. Carolina
S. Dakota			22	2	7		22			14							1	1	1		69	S. Dakota
Tennessee			69	4	3	4	75	3	2	16	1			1			4			3	185	Tennessee
Texas			371	3	9	1	295	11	2	58				1			2	6	2	7	768	Texas
Utah			30				24	1									1				56	Utah
Vermont			18	1	6		33	1		6				2					3		70	Vermont
Virginia	1		137		6	2	123	6	1	11		1				1		2		1	292	Virginia
Washington			67		7	2	90	4	1	36		1		4			5			7	224	Washington
West Virginia			50		10		68	5	2	12			1	4			1		3	4	160	W. Virginia
Wisconsin			132	7	22	2	145	11		33		3		8			8		5	7	383	Wisconsin
Dist. of Col.	11		21		3	2	63	6		3										10	119	Dist. of Col.
Totals	60	49	4865	139	662	79	6176	486	114	1179	7	77	14	210	12	61	230	84	66	255	14765	Totals

Here Are Liberty's 14 "Best Read" Editorial Items

During the Past 19 Weeks of the Percival White, Inc., Count of What People *Really* Read.

(More Free Ideas for Editors and Copywriters)

THESE are the leading reasons why more than 2,000,000 men and women ask for Liberty every week . . . . ask all over again 52 separate and distinct times a year . . . . pay full retail price each time without premiums, clubbing or long term subscription price inducements.

This is the editorial background before which Liberty's advertisers display their wares.

These are the magnets that have drawn an average upward of a quarter million more pairs of eyes to advertising pages in Liberty than elsewhere, regardless of the relative volume of "delivered" circulation elsewhere.

Advertiser: Ipana
Agency: Pedlar & Ryan, Inc.
Space: Back Cover
Attention Value: 90% better than average page

Advertiser: Prudential
Agency: Frank Presbrey Co., Inc.
Space: Black & White Page
Attention Value: 75% better than average page

Advertiser: Spud
Agency: Kenyon & Eckhardt, Inc.
Space: Black & White Page
Attention Value: 65% better than average page

Advertiser: Chesterfield
Agency: Newell-Emmett Co., Inc.
Space: Back Cover
Attention Value: 50% better than average page

Advertiser: Grape-Nuts
Agency: Young & Rubicam, Inc.
Space: 2-Color Page Roto
Attention Value: 45% better than average page

Advertiser: Listerine Antiseptic
Agency: Lambert & Feasley, Inc.
Space: ½ Page Black & White
Attention Value: 45% better than average page

Advertiser: Kotex
Agency: Lord & Thomas
Space: Black & White Page
Attention Value: 45% better than average page

Average Page Advertisement in Liberty

	Per Cent of Extra Persons Noting Over Second Weekly	Over Third Weekly
This Week (Sept. 17 issues)	13%	77%
20 weeks to date (Average of White surveys)	17%	47%

	Projection of Extra Volume of Persons Noting Over Second Weekly	Over Third Weekly
This Week (Sept. 17 issues)	176,375	420,389
20 weeks to date (Average of White surveys)	246,966	235,128

Liberty . . . *America's* BEST READ *Weekly*

HIGHEST RATED ADS OF THE WEEK

SEPT. 17